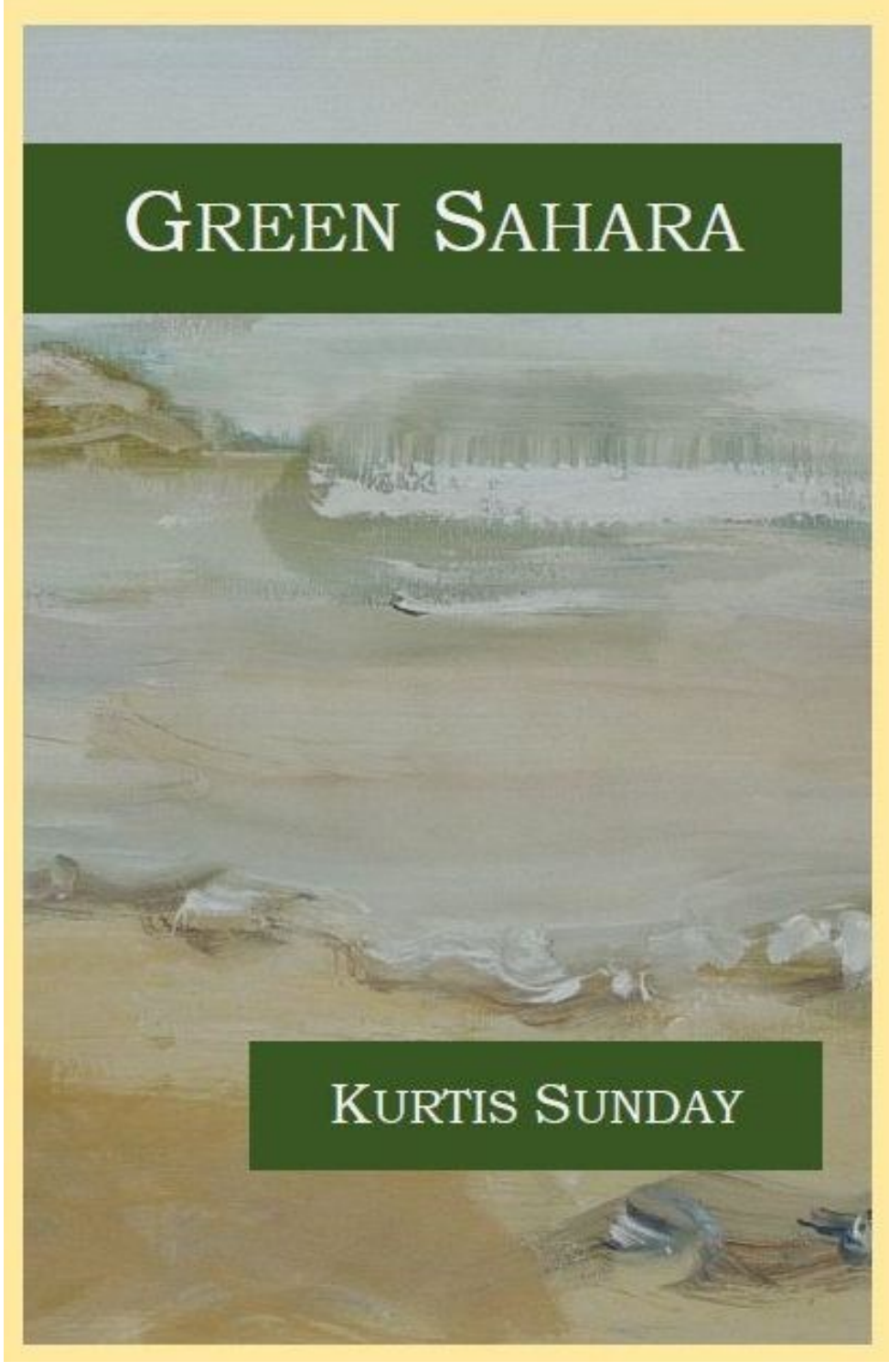


The background of the cover is a painting of a coastal scene. In the foreground, there's a sandy beach with some small, dark, indistinct shapes that could be rocks or debris. The middle ground shows the ocean with gentle waves washing onto the shore. In the background, a large, rounded hill or headland is covered in a dense forest of tall, thin trees. The sky is a pale, hazy blue. The overall style is impressionistic with visible brushstrokes.

GREEN SAHARA

KURTIS SUNDAY

GREEN SAHARA

In the distant future, there are only three large habitable regions on Earth: the Impæriyan Bureaucracy at the North Pole, the Antarkian Commonwealths at the South Pole, and the Ecclesiastical Sovranty of Afrika Minor in the Green Sahara. The basic law governing the complex relationships between these three civilisations is the Concordat. The lingua franca is late neo-ancient Ænglisk. The hot and arid region known as the Wilderness, which covers eighty per cent of the planet's land surface, is inhabited only by the Kinvolk. The global population is just over three hundred million.

GREEN SAHARA

A NOVEL

KURTIS SUNDAY

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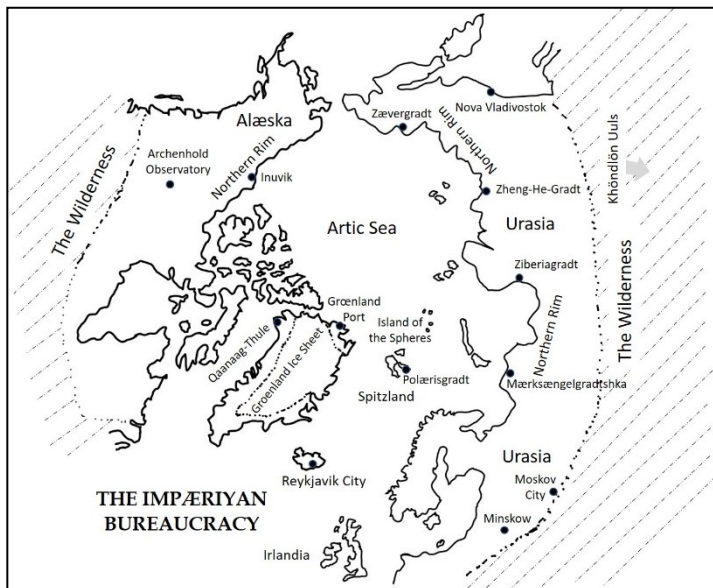
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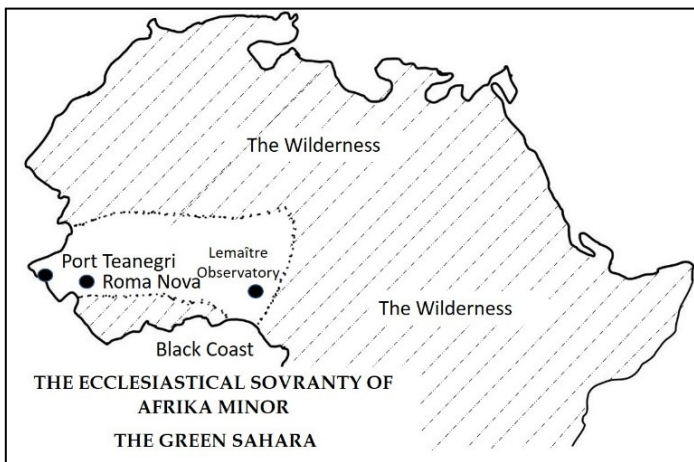


Cover image:

Sandscape by Clare Owen Maynard

MAPS





PROLOGUE

1

High above, in the hot air, its black silhouette visible against the mottled grey of the clouds, a rare buzzard was circling, scanning the landscape in the hope that something edible might show itself, perhaps a desert mole or a sand viper. The terrain appeared incapable of supporting any kind of life. But it did. Every fifty metres or so, there were thorny, leafless bushes, one of the few forms of above-surface plant life that was capable of surviving in the expanse of bone dry stones and sand.

He became aware again of the mechanical hum of the crawler's solar-powered air-cooling system and realised how tired he was. And, bizarrely, remembered what his name was: Gustine. It had been months since he'd heard anyone utter it. He was even tempted to say it aloud.

Gradually the ground became smoother and the crawler picked up speed, churning up a cloud of desert-brown dust, visible in the side mirror as it dissipated behind him in the constant, dust-laden wind. There was a rock formation up ahead which was casting a tempting shadow. He decided to head towards it.

He was there five minutes later, stopped the crawler and switched off its electric motor. The unfamiliar silence sounded strange for a moment. He put on his sun visor, opened the hood-clasp, and lifted the cabin hood slightly, which sprung up and back of its own accord. The outside air was hotter than it had been in the enclosed space of the crawler cabin, but it was more breathable.

He knew he should get out and stretch his limbs. He'd been sitting for several hours, hunched over the steering bars. But he

decided to give himself a few moments respite. It was no hotter than it usually was but today for some reason the heat had been draining. He sucked a sip of water from his shoulder-flask. It tasted mildly salty.

This sector of the Wilderness, called the Manhattan Flats for some long-forgotten reason, had not been harvested for more than a decade. He was not sure why. It was relatively rich in manna plants. He'd found a total of seven, two 'flowering', their above-ground tendrils still covered in yellow 'petals'; but the other five had been ripe, and had yielded a nice harvest of the sparrow's egg-sized, resin ovoids, the precious manna itself. The transmutation of manna, the Black Bread of Life, into therak made the Afrika Minor a power in the world, and the Teilhardians a power in Afrika Minor.

The sun was already low in the sky. The spot was reasonably well sheltered and one never knew when a sandstorm would blow up. He decided he would stay there overnight.

He alighted from the crawler and began to walk to some boulders about fifty metres away, keeping in the shade as he did so. The ground was more sand than gravel, the kind of ground under which, just possibly, a manna plant might be slowly growing; and they grew slowly, producing manna only every two or three years. Nobody was sure how long they lived; some speculated it might even be a couple of hundred years. Neither did anyone know how many there actually were. Nor how they reproduced exactly. Of all the living organisms the neo-ancients had bioengineered, it was the most mysterious. One theory was that the manna plant had been bred to provide the prophylactic therak against the ionising radiation that neo-ancient cosmonauts had been exposed to on Mars, the asteroids and on the moons of the gas giants. However, there was nothing in the archives regarding it ever having been used for that purpose. Neither did that theory explain therak's neurostimulant properties; though of course, that could have been purely serendipitous. And additionally, there was no evidence to suggest that therak would work as a prophylactic against the

higher levels of radiation, or the chemical toxicity, of non-terrestrial environments. Some argued that, from a taxonomical point of view, it wasn't even a plant at all, but something more akin to a species of Cnidaria, closer to a type of coral or sea anemone than a plant. All attempts to grow them in laboratories under every conceivable artificial eco-condition had been unsuccessful. When they died, they decomposed – not into something biodegradable, but into a dry, water-repellent and semi-translucent mineral dust. Some believed that the original organism was a hybrid of the secretly recovered remains of a microscopic Martian lifeform and some synthetic terrestrial plant.

When he reached the boulders, he looked back to where he had walked from. The skeletal shape of the crawler, silhouetted against the dusk sky, looked oddly insectoid-like. The remains of a Pesochinsky Chimney stood in the distance, a tapering tower constructed of concrete and steel, so far away that he was not able to see its base; it must have been close to two kilometres high. The smoky-orange globe of the slowly descending sun was visible through the clouds. He stared at it a few times, hoping to catch a glimpse of the Landauer Shield, the mote in God's eye as some called it. Under the right conditions, it was sometimes possible to see a miniscule dark speck. The Shield was the size of the Indian subcontinent, and deflected three per cent of incoming solar irradiation; but it was disintegrating. It had stopped the heating, but it had not reversed it. A hundred years ago it had still been positioned dead centre of the solar disc however, for decades now it was usually somewhere slightly off-centre. But he was unable to see anything.

He warmed up some food as the Wilderness darkness descended. Some animal was intermittently screeching somewhere in the distance. Before he ate, he said a silent prayer of thanksgiving, without thinking. Prayer should never become mere habit, but habits came easily in the Wilderness.

An hour or so later, the air had cooled somewhat. He checked

his wrist-thermometer. The temperature had dropped 4 °C. He took out his vaporiser and took a deep breath of therak, savouring the mental clarity it brought. Early evening was the best part of the day: the air cooling down, but not yet settling into the insomnia-inducing mugginess of the night. However, on rare cloudless nights, it became uncomfortably cold, which it could be tonight. The clouds were thinning out and a few stars were visible, and Mars, relatively low in the sky. But there was no moon.



The next day at noon – it was another cloudy day – he estimated where he was on the sector map, which was more blank spaces than landscape features, with the help of the dashboard compass, and noted his position in the log. Then he checked the radio daily weather report. A heatwave was on the way, a nasty-sounding one. He decided to head to Depot 95.

An hour later he spotted the twenty centimetres high, petal-less, purple tendril of a manna plant beside some dwarf jangwa cacti. Attracted by jangwas' moisture-rich roots, manna plants were often found near them.

Harvesting the ovoids needed to be done delicately. First, one removed the soil – sand in this case, though it was usually a mixture of sand and gravel – until the ovoids were visible and accessible. Then, using a scalpel, they were cut cleanly from the mahogany-brown root matrix, reminiscent of a neural network; this caused the plant to emit a chemical, vaguely medicinal smell. Care needed to be taken not to cut into the roots themselves, and only to harvest the mature, ebony-black ovoids, not the immature, lime-green ones; cutting these off could kill the plant.

Satisfied he had found them all, he placed the ovoids in the crawler's storage compartment with the others he had harvested over the previous few weeks. Once, in the distant past, harvesters used to note the locations of plants with the intention of returning and re-harvesting the same plant a few years later.

But a manna plant, once harvested, was never again found in the same place. How they moved through the ground – very slowly – was a mystery. Manna plant folklore was rich and varied. One theory was that they surfaced at night and somehow slithered over the ground, burying themselves again at some new location; but there was no evidence for that. Some even thought that the plants possessed an intelligence significantly more sophisticated than usual botanical intelligence and that their distribution formed a semi-geometric pattern. This implied that they were able to communicate with each other in some precise way. Most maps of their distribution patterns, which were always changing, seemed to indicate that there was something artificial about it, something which could not be accounted for by a purely natural, bio-symphonic process. But then again, the honey combs constructed by bees were also near-perfect geometrical structures.

He mounted the crawler once more, pulled down the hood, glanced at the compass to check his bearings, and slowly began heading south, towards Depot 95. He estimated, barring mishaps, it would take him three days to get there. He switched on the radio, hoping to listen to the afternoon concert from Roma Nova, but the reception was too erratic so he switched it off.



The circular concrete slab looked as if it had only recently been exposed by the wind. He'd almost not noticed it. The ground around it was sandy. It was about the size of the crawler and was surprisingly smooth and well preserved. He wondered if there might be something underneath it. Perhaps it was the remains of a neo-ancient well or irrigation system, long dried up centuries ago.

The Wilderness was littered with neo-ancient ruins. Most were just the derelict remains of concrete buildings, but some of them had a timeless, melancholic grandeur about them. Sometimes he would stop and wander around them, musing on

what they had been like when they were inhabited, half-imagining that the presences of their long-dead inhabitants were still lingering about; but more often than not, he just passed them by. If a site was not already on the sector map, he marked it in. The problem for the archaeologists was not a scarcity of sites but knowing what might be worth excavating. Most of the large ruins had already been located and catalogued at least a century earlier. Books and early analogue tapes – a considerable number of them survived near-intact in dry conditions – and inaccessible boolean data storage devices were often recovered, and eventually ended up in the Teilhardian archives.

He stepped onto the slab, carefully, though it looked solid enough, and tapped it with his boot, but failed to produce the echoing sound that might indicate if there was a hollow cavity beneath it. Perhaps he needed to hit it with something more substantial. He found a small stone nearby. But instead of simply dropping it onto the slab, he threw it onto it. It produced an echoing, ringing sound as it bounced off, but it was not definitive. He decided to try again, with a granite-like rock about the size of his fist. He aimed at the centre but missed, instead hitting the edge, but this time causing a definitive, echoing, ringing sound. But, as the rock clattered to rest, a patch of the gravelly sand at the edge of the slab flowed away to reveal what looked like a crevice or hole.

His first thought was that it might be a sand viper nest. He removed his sun visor in order to properly see down into the crevice, but not without first checking by probing it with the monocular tripod, the only thing long enough that he had available. When he was reasonably sure there was nothing living inside it, he knelt down and had a proper look. It appeared to be deep, and the hollow space seemed to extend under the slab. He fetched his electric torch from the crawler and shone it down into it, but he could not make anything out in the darkness. He decided to drop a pebble down into it to assess how deep it might be. The pebble took a couple of seconds to hit the bottom, producing a clattering sound when it did so. He made a rough

mental calculation. Two seconds equalled about twenty metres, which is what one would expect for a well shaft. He shone his electric torch down into it again, this time shielding his eyes more carefully from the sun. It took his eyes a few moments to adjust to the darkness before he could make out anything, and longer to be sure that he was seeing what he thought he was seeing: a metal ladder, with a safety cage, descending into further darkness.

Exhausted by the effort of even such limited physical activity – it was late afternoon, still as hot as it had been at midday – he went back to the crawler, closed the hood, turned on the cabin cooler, and sipped more salty water. He tried to think what it might be. That a well or an irrigation system might have an access ladder was a possibility. But it could also be the sealed-up entrance of an old mine. Or even a bunker. It was possible. He took the sector map out from the document pouch and examined it; maybe it was already marked. But it was not. There were no ruins shown for the area. The nearest one was two hours away, to the north-east: an airport complex, which he'd driven past a few days earlier. All that remained was the take-off and landing field, the concrete slaps clearly marked out by the chequer-board pattern of the desiccated thorn bushes growing in the gaps between them, the floor outlines of the terminal buildings, the stump of a control tower, the corroded remnants of metal structures, and shards of sheet glass weathered to opacity through centuries of exposure to the wind and the sand. However, here and there, the marble-tiled floors of some of the buildings were still impressively intact.

The neo-ancient ladder looked secure enough. He had several ten metre long, lightweight ropes, three of them. The shaft was unlikely to be more than thirty metres deep. He took another sip of water and tried to weigh up the risks. No one had probably been down the shaft for centuries. The most obvious thing that could go wrong was that he might slip, or a rung of the ladder give way, or what would be an absolute disaster: the ladder might detach itself from the shaft wall under his weight, and,

hopelessly tangled in the ladder cage, he would be dragged down with it as it fell. He could use the crawler radio transmitter to call for help if something went wrong, but that did depend on him being able to get to it. It would be dark in another couple of hours. If he was going to do it, he should do it now, while it was still light. He could climb down using the safety cage itself as a ladder, with the rope tied round his waist and secured to the crawler. Every two or so metres he could adjust the rope so that if he did fall, it would only be a couple of metres. That should be safe enough. If it looked like the ladder could not take his weight, it should be apparent when he set foot on it.

He decided to risk it.

It took him a while to locate what he needed and set it up, double-double-checking everything that could possibly go wrong. It was easy enough to make simple mistakes in the heat. He tied one of the lightweight ropes to the rear axle of the crawler, with two knots for extra safety. The vehicle was several times his body weight, mainly because of the accumulators, but he took the additional precaution of wedging all four wheels securely in place with some rocks. He double-tied all the ropes together, and then round his waist in a manner that would enable him to climb down the outside of the cage, but at the same time ensure that if he slipped or the cage gave way, he would never fall further than two metres; and checked that his electric head torch was fully charged. He tried to think if there was something he'd forgotten but he couldn't think of anything.

He crossed himself – a superstitious gesture, he knew, and pointless – and lowered himself onto the first rungs of the ladder cage, and started to climb down into the darkness, slowly and carefully. Every two metres he lengthened the rope, each time making sure he was securely attached. The ladder seemed solidly fixed, and the concrete shaft lining showed almost no signs of age.

When he was perhaps twenty metres down, he found himself stepping onto solid ground, the floor of the shaft. It was covered in a thin layer of sand-like dust but he could see that it was tiled.

Which was hardly congruent with it being a well; or at least he didn't think so. He unhitched himself from the rope in order to be able to look around properly. He could only see what appeared in the beam of his electric head torch. There was a door, metal, grey painted, with a handwheel locking and unlocking mechanism of the type that was common on ships. There was also some lettering on the door, in faded yellow, and a symbol. The characters looked like some neo-ancient East Urasian script. He had no idea what the symbol meant. For the paint to survive, it must have been bone dry down here for centuries. He knew it did rain in this sector – less than once a decade, and heavy enough to cause flash floods and landslides at times – but the shaft must have been so well sealed that it prevented any water ingress. The paint on the ladder was also still intact. The air was considerably cooler than on the surface.

He stood looking at the door for a few moments and at the lettering and the symbol. If he were to try to open it, would it open? he wondered. Perhaps it was also locked on the other side, or rusted shut, though he couldn't see any sign of corrosion. It looked, in fact, as if it had only been recently installed, which, of course, was impossible.

He decided to attempt to open it.

To his surprise, the handwheel didn't require much torque to rotate it into the open position, and he was able to push the door open with unexpected ease, though the hinges could have done with some grease.

The first thing he saw was a grated metal platform and railings. And beyond the railings, the beam of his electric head torch shone down into the pitch-black darkness of a hanger-sized cavern. From the platform, a winding metal staircase led down to the floor of the cavern, where he was able to make out what looked like machines of various kinds, and several very large semi-cylindrical objects resting horizontally on large, wheeled, metal support structures. It took him a few moments to figure out what they unmistakably were: space vehicles, shuttlecraft, and there were four of them. They looked

otherworldly, as if they were only a few decades old. He didn't know a lot about spacefaring technology, but he was sure they were Sullivan-Orlowska magneto-engine vehicles of the type which had been used during the cosmonautic era.

FIFTEEN YEARS LATER

2

‘The Concordat was signed a long time ago,’ Oktavian Abantu said. The Holy Fool was a big, muscular man, with amber-brown eyes. It was always difficult to be sure what his true opinions were on any matter or to discern which of his roles, the jester or the elder counsellor, he was playing at any particular moment. And he had a habit of parodying himself at times. The origin of his office was obscure but was generally believed to be a revival of a custom from pontifical courts before the neo-ancient epoch. ‘In a different time and under different circumstances.’

‘That does not invalidate it,’ Miasignora Khan pointed out. She was a stout, curly-haired woman, and was wearing her Miasignora’s purple robe for the occasion. ‘And the interdiction is quite clear.’

All of which was true, Gustine thought, glancing at the wall chronometer again, and then out of the window. The sky was still cloudless. They were in the book-lined lecture chamber of the Observatorium Romanum Novum, located amid the green hills twenty-five kilometres north of Roma Nova. The Concordat had also been written in the Latin of its time, and unlike the Universal Declaration of Human Obligations, in an imprecise Latin at that; and how many sections of it were to be correctly interpreted had been argued over *ad infinitum*. But Khan was right, the interdiction was clear, though the reasons given for it were brief and vague. Because, it was more than plausibly argued, at the time there had been no need to state the obvious.

He was just about to intervene but Hiroshima Linn spoke.

‘The Landauer Shield continues to disintegrate,’ she said.

Linn, the Acting Commander of the Kohors Helvetika, was a small, olive-complexioned woman, with short, straight, jet-black hair that made her look younger than she was, boyish even, and she was wearing her midnight blue Kohors Helvetika uniform. There was nothing in her looks or demeanour that would give one the impression that she could be extremely single-minded, and when she judged it necessary, near-ruthless; she also possessed a very down-to-earth pessimistic streak. 'Acting Commander' was the actual title; there was no such rank of merely 'Commander'.

'Astronomer Aggarwal Gustine's rather expensive proposal,' Khan said, 'will do nothing to alter that fact.'

'The papal treasure chest is hardly empty,' Abantu commented.

Gustine had won Hiroshima Linn's support for the Teilhardian proposal months earlier, and with surprising facility. She was adventurous by nature, he supposed, but her enthusiasm for the idea still surprised him. 'We are far too set in our ways, far too careful,' was all she had said. 'It's been centuries since the Twilight, since the Concordat was signed. A long time. We cannot forever not change.' And now it seemed that the Oktavian Abantu had also come round to lending his support; though one never quite knew why the Holy Fool threw his weight, figuratively, behind anything.

The time was now nearly fourteen o'clock.

'We need to ascend,' Gustine said.

The telescope was on the floor directly above them.

As he led them up the winding staircase, he hoped that the observation would go off without some problem arising. He had prepared everything meticulously beforehand but the viewfinder of the gigantic instrument, a wide-aperture reflector that had been constructed two centuries earlier using a lens recovered from the ruins of a neo-ancient observatory in the West Urasian Alps, was not always as accurate as one would wish.

When they entered the dome, he began to explain how the

observation was to be made.

‘The telescope is pointed at where the sun will be in a couple of minutes,’ he said. ‘The image will be projected onto the screen behind you. Near the centre point of the solar disc, we will be able to see a hexagonal black shape.’

‘The Landauer Shield,’ Miasignora Khan said.

‘Yes. How clear the image will be will depend on atmospheric conditions. Luckily, right now, the sky is nearly cloudless.’

At this time of the year, the Green Sahara had on average only four or five cloudless days a month. Their seeing the real thing would, he hoped, have more of an impact than any printed image. However, he had prepared photographs which he intended to give them if it did cloud over.

‘The Shield is one and a half million kilometres distant,’ he went on, to pass the minutes, more than anything else; it was hardly something that they were unaware of. ‘It is situated at a Lagrange point, where the gravitational pulls of the sun and Earth are equal. Which means that it is always between us and the sun, and orbiting the sun synchronous with Earth.’

A few minutes later, just as he finished speaking – he’d filled up the time with a short account of how the Shield had been manufactured and launched – the edge of the image of the sun appeared on the screen and began to move slowly across it, gradually expanding. A minute later, the entirety of the furnace-glow orange disc was visible. Not exactly in the centre of it, but perhaps a tenth of the distance between the centre and the flicking edges of the solar disc, the black hexagonal shape of the Landauer Shield was visible.

The disintegration was evident. There was a large, rough-edged fissure in the top left quadrant of the structure, about one-tenth of the size of its total area, and several additional smaller fissures at different locations through which the orange glow of the sun was visible.

‘The Shield is being constantly bombarded by micro-meteoroids,’ Gustine informed them, ‘but its nano-silicon mirrors are pretty well able to withstand that. The large fissure

first appeared fifty years ago, and it has been getting larger year by year. And those smaller fissures: we have compared observations from over the last twenty years, and there are more of them now, approximately twenty per cent more, than there were then. We assume that there are numerous even smaller fissures, but to see them we'd need a more powerful telescope. The Shield is also now further off from the centre than it has ever been. Its position at the Lagrange point is unstable, and growing more unstable. Most likely because its location-maintaining Sullivan-Orlowska magneto-engines are malfunctioning, or have even failed. If it moves out of its position between us and the sun, or suffers some catastrophic disintegration, average global temperature would rise by more than 3 °C within months.'

While they watched in silence as the image of the solar disc slowly moved across the screen and then eventually disappeared, Gustine thought of the countless meteoroid impacts, silent in the vacuum of space, that were slowly but relentlessly destroying the wonder of neo-ancient technology.

Miasignora Khan was the first to speak when they returned to the lecture chamber.

'To imagine that we or even Impæriya could develop the technical capability to somehow repair the Landauer Shield would be folly *in extremis*.'

The Shield's myriad mirrors had been constructed on the moon in vast robotised factories, using materials that had been mined there, then launched into space using an electromagnetic rail gun, and subsequently assembled at the Lagrange point. The titanic endeavour had taken nearly thirty years. It had been the most ambitious extraterrestrial endeavour of the cosmonautic era.

'No doubt,' Gustine agreed.

He could hardly say otherwise. However, sometimes he entertained thoughts that it might be possible. Humankind had performed astonishing technological miracles, among the ruins of which they now lived. Dreams that such achievements might,

in some far distant future, be possible again had shaped his life since he had first seen the otherworldly, dust-covered neo-ancient space vehicles in the beam of his electric torch over a decade ago in the subterranean cavern in the Wilderness, and realised what they were. But even if repairing the Shield in some distant future was even remotely possible, any attempt to convince the current Impæriyan Bureaucracy, without whom no large technological venture of any kind was possible, to take measures that might not bear fruit until centuries from now, if ever, would be futile.

‘But?’ Khan said.

‘The Teilhardian Order,’ he said, ‘has come to believe that for humankind, if not for other species – those few that have managed to survived – Earth is lost. How many more generations can we survive? Ten? Twenty? Thirty? The Wilderness currently increases in area approximately five per cent every century. Our demise will not occur tomorrow, or the day after tomorrow ... but it will come eventually. The only way of ensuring we are not to become a dead branch on the tree of evolution is to venture out into the cosmos again.’

‘And realise *our* cosmological destiny?’ she suggested.

He ignored her attempt to provoke him. But she had a point. The neo-ancient capitalocratic elites had also believed that they had a cosmological destiny, and had rendered most of the planet inhabitable in their attempt to transform it into a sterile technosphere ... from which they hoped humankind would venture out into the far reaches of the cosmos. But this was not the moment to initiate a discussion about the theo-systemics of the Omega Point or the Resurrection of Time. Besides, while officially, Teilhardian theo-systemics had been the default orthodoxy for centuries, most paid it little more than lip service.

He inhaled a deep breath of therak from his vaporiser before continuing.

‘What we propose, if successful, could be a modest first step towards rediscovering, or reinventing, the technology which would enable us to go into space again. Not on a scale that

would enable us to repair the Shield – nor in the manner of the neo-ancients – but perhaps on a scale that would enable voyages to the moon. Strictly speaking, I admit, that is not in accordance with the spirit of the Concordat, but years will pass before any applicable technology emerges. We could, of course, in time, discuss – and I say this fully aware of the delicacies involved – new interpretations of the Concordat with Impæriya.’

He did not mention Copernicus Delta. It was too early to be sure.

‘Not even a rumour of us discussing this,’ Khan said, ‘must ever reach Impæriya or Antarkia. And if the Kurators allocate the necessary funds ...’

‘The Teilhardians are skilled in the art of keeping secrets,’ Gustine reminded her.

‘True enough,’ Khan admitted.

The exact location of the manna-plant zones and details regarding how the Black Bread of Life was harvested and its transformation into therak crystals had been kept secret for centuries. This project would not merely involve keeping the details of an endeavour secret, but preventing any knowledge of its very existence from becoming known: a very different matter. That was not impossible. Not even a whiff of a rumour about the four shuttlecraft had ever emerged. All cosmonautical technology was Protocol 3. The discovery should have been reported to the Antiquities Bureau for obligatory neutralisation or destruction.

‘If it were to become known,’ Abantu said, ‘that we, who are considered the Mothers of the Concordat, were not abiding by it—’

‘A sacrificial lamb might be required,’ Khan said.

‘... *to be sent as a scapegoat into the wilderness*,’ Abantu added. ‘Leviticus 16, I believe,’ he clarified. ‘Not made up.’ He had a habit of misquoting or even inventing quotations from the Holy Books. And mixing his metaphors

Hiroshima Linn looked at Gustine. If ever a scapegoat would be required, it was obvious who it would be.

FIVE YEARS LATER

3

The sun was sinking into the unusually cloudless western horizon and dusk was descending as Xanadu left Frederikefels and made her way along the cliff path towards the commune. The ocean was calm for the time of year, and the air smelled of salt and algae. The chemical orange blooms had been particularly large during the summer. There was a hint of the coming winter and the days of darkness in the humid air. A windjammer, its dark blue sails billowing in the breeze, was making its way along the coast to one of the other Commonwealths.

When Xanadu reached the commune gardens and potato beds, both looking somewhat forlorn after the harvest, she sat down on the slate bench by the apple trees. The horizon was now a blaze of colour. The sun's fading rays were lighting up the mirror-like sea and the slate roofs and grey-stoned towers of Frederikefels School, which was perched on the side of the hill overlooking Frederikefels itself. Venus had already appeared and was shining bright. The beauty of the scene reminded her of that phrase from some now nameless neo-ancient sage: something about there being more things in the cosmos than can be conjured up in any philosophy. As the sun disappeared, the bands of clouds on the horizon turned vermillion and grey-purple, and the dusk began to dim into night. As the first stars appeared, she saw a green, flashing point of light to the north, high up: an aero-liner, heading most likely to the aerodrome at Seaweed Bay, thirty kilometres down the coast.

‘Are you going to invite me in?’ Ziddhartha Platonow said, laughing.

For a moment Xanadu was speechless. He was the last person she had expected to see standing on the threshold when she had opened her roundhouse door.

‘A bowl of hot tea would do me the world of good,’ he suggested as he hung up his waxed hooded cloak and plumped himself down into one of her two armchairs.

He was a small man, balding, slightly gnome-like in appearance, dark complexioned. And much older than her fifty or so years; how much older, she had never managed to figure out. Like most Antarkians, he had a small tattoo on his left cheek, a dark blue disc with ivy leaves, the symbol of Rising Dark Moon, his cult-society. Hers was a dark purple, hexagonal snowflake crystal.

‘When did you arrive?’ she asked him as she lit the stove ring and put the kettle on.

‘Last night. On the *Mumford*. I stayed overnight at Seaweed Bay.’

‘I saw it coming in over the sea yesterday evening.’

The last time they had met had been a year ago, at the annual gathering at the Symposium of what she sometimes referred to, scathingly, as ‘the sages’. He had delivered a lecture to a packed amphitheatre on his latest monograph, *On Science as Archaeology*. They had known each other for nearly twenty years and corresponded frequently, if erratically, ever since he’d written to her after she’d had *Bronze Age Synchronologies* printed and distributed.

‘Pelikan sends his regards,’ he said as she handed him a steaming bowl of tea. ‘He was in New Lhasa last week.’

It was nice to hear Tazman again, with its rolling r’s and guttural consonants. She rarely had the opportunity to indulge these days.

‘Pelikan Ghosh?’

‘The one and only.’

‘I’m surprised he remembers me.’

Pelikan Ghosh was one of the Symposium's senior archivists. He knew his way around its card index files, both the written and the punchcard ones, better than anyone else. He was also considered an expert on both the Impæriyan and Sovranty cataloguing systems. And had a reputation as a dancer.

'Oh, I think he's a surreptitious admirer. Not that he would ever admit it.'

It began to rain. They could see it falling on the gardens outside through the bay window.

'That's the first it's rained for weeks,' she said. 'Why don't we go for a walk in it? It's not that heavy. I have an extra umbrella. We could wander up to the Tower of Silence.'

They put on their hooded cloaks and set out, walking silently for a while. The rain was falling gently and the dry clay soil was already turning muddy.

They talked of mutual acquaintances, the latest machinations at the Symposium, which, having just arrived from there, he was able to describe in detail. Pelikan Ghosh had yet again refused promotion, and the records uncovered at two neo-ancient sites in the southern Afrikan Wilderness had finally arrived.

'I have a feeling this is not strictly a social visit,' she said after a while.

He paused. For a moment she thought he was going to make some half-erudite, half-silly joke.

'Something has happened. Or rather: is happening ...' She waited for him to explain, but now suddenly afraid that he was going to announce he had some dreadful incurable illness or— 'The Indraghosh people have discovered something. Something unprecedented.'

Just as suddenly she felt relief.

'That sounds ominous,' she said, half seriously.

He closed his umbrella. The rain had stopped and the sun had reappeared, and there were patches of azure sky. The yellow furze bushes on the hillsides looked freshly born. The Tower of Silence, a solid, squat, whitewashed stone structure was now visible, glistening in the momentary sunshine and rain-cleaned

air. A single carrion petrel was circling overhead, silhouetted against the sky.

'The days, the years, the centuries,' she quoted, *'like frictionless grains of sand ...'*

'Arkardsky?'

'From that collection of hers I translated a few years back. *Meditations upon the Ruins of a Neo-ancient Metropolis.*'

'I don't remember that line,' he said.

They walked on.

'I need your assurance that what I'm going to tell you will remain between us and the rocks,' he said eventually. 'For now anyway. It will be common knowledge soon enough. It is not something that will place you in an uncomfortable ethical dilemma, or at least I hope not ... You'll understand why when I tell you.'

She hesitated for a moment.

'Agreed,' she said.

'Of course, the whole affair may turn out to not mean anything at all.'

'You're procrastinating.'

'I know. It's a bad habit.' He paused again. 'Two months ago ...'



'Who knows of this?' she asked him later.

The sun had set and the evening chill was creeping in. She'd lit the stove and switched on some of the electric lamps. The smell of the burning kelp briquettes evoked memories of times past, and of day-long polar nights.

'Besides the Indraghosh people, only the Symposium Directorate.'

'You journeyed all the way here to tell me about this?'

'Because – if it is what we, I, think it might be – it concerns all humankind. We cannot keep it a secret. The Impæriyan Bureaucracy needs to be informed.'

'Isn't it possible they know about it already?'

‘Highly unlikely. And the sooner they are informed the better. Before it becomes common knowledge.’

‘And Afrika Minor?’ she asked.

‘They too will be informed,’ he said. ‘In due course.’

He paused for a moment.

‘Tell me about Impæriya,’ he said.

‘You’ve read the books.’

‘I haven’t been there. You speak the language. You know how things work there.’

‘It was a long time ago.’

‘Twenty years. Not that much can have changed since.’

She inhaled a breath of therak. The diaphanous vapour had the faint scent of stone after rain.

‘What do you want to know?’ she asked him.

Outside in the night some wild kangaroos were cough-barking, and now and again they could hear a sound resembling the low whining of an electric motor.

‘Owls,’ she explained.

They spoke long into the night.

4

‘Liam Dianovitch’s office was on the third floor of the Impæriyan Guardianship Secretariat headquarters on Tesla-Schopenhauer Boulevard. The block-like, terrace-less, grey-stone building was typical Polærisgradt Bureaucracy architecture. The Guardianship’s function, in theory, was to oversee all the executive bodies of the Bureaucracy, of which the Antiquities Bureau was but one of many, and to act as an enforcer of the last resort of the provisions of the Concordat and the Universal Declaration of Human Obligations. As Karthika Hoffmann – she was a senior officer in the Antiquities Bureau – knocked on the door, she felt the mild dread she always felt when Dianovitch invited her round for a chat.

‘Come in!’ a voice said. Dianovitch’s.

The brass-handled wooden door creaked on its hinges as she opened it.

‘I’ve been meaning to oil that for months,’ he said as she closed it behind her.

The Executant-Clerk of the Impæriyan Guardianship Secretariat, a small, neatly shaved man in his middle fifties, with curly red hair, was sitting at his standard-issue desk, going through various files, pen in hand, his beloved samovar gently steaming away on a side table.

‘Tea?’ he asked. ‘I have some excellent Saharan Aromatic.’

Dianovitch’s oval wire-framed spectacles made him look bookish, academic. Which, in what he called ‘a minor way’, he was. He had written some monographs on early neo-ancient literature. He also had a quiet confidence about him that one only noticed after a while.

‘Please,’ she said.

A large, framed black-and-white photograph of the ruins of some neo-ancient Arabian city, its glass-and-concrete towers in

various stages of monumental decomposition, hung on the wall. When she had first seen it, she had mistaken it for a painting but had thought there had been something odd about it. It was too stark, the perspective too precise, and it lacked that distinctive melancholic atmosphere that most monumentalists tried to evoke; and there were no solitary figures wandering pensive among the neo-ancient ruins. There was also a radio-television set on the sideboard.

While he prepared the tea, they chatted idly about the weather, which was typical for Polærisgradt in spring: overcast and humid, with rain forecast. The polar night was behind them now and the days were getting longer. The crocuses in the parks were already out. However, the terns had not yet arrived.

The tea smelled exotic, of faraway climes.

He sat down again at his file-strewn desk.

‘Just what I need,’ she said.

‘What would we do without it?’ he said, opening another button of his wine red, collarless tunic jacket.

‘Go thirsty, I imagine.’

Hoffmann had had many dealings with Liam Dianovitch over the years, all official in one way or another. Mao-Te called Dianovitch a fanatic. Which was an exaggeration. He simply had orthodox views, strongly held and often expressed passionately. Like most conservatives, he believed that change was to be avoided unless absolutely and demonstrably necessary. Or as he would most likely put it: the wisdom of our ancestors, of those who had survived the Twilight, was not to be casually cast aside merely because we do not understand it. It was the political philosophy, in one variation or another, of most Impæriyans, and most Afrikans and Antarkians. The three civilisations, in their own ways, had developed sociopolitical systems that had proved remarkably effective in putting an end to capitalocracy and technological exponentialism, and enabling a small portion of humanity to survive the Twilight. Conservatism – and the Concordat – had delivered three centuries of stability. And peace: the human male propensity to

violence had diminished to the level of that of the human female. But Hoffmann, and others, had gradually come to the conclusion that the political philosophy that counselled excessive caution in all things had degenerated into stasis, into a deadening complacency.

‘Ziddhartha Platonow,’ he said. ‘Have you heard of him?’

The name meant nothing to her.

‘I can’t say I have.’

‘He is an esteemed Antarkian scholar. Some of his work has been translated into Impæriyan. Or so I’m told. He will be visiting us.’

‘And to what do we owe the honour?’

Dianovitch ignited his vaporiser and took a breath of therak.

‘The official communiqué to the Executive Committee, not that Antarkians can ever be said to do anything very much officially, stated that the matter was important. Urgent. But that Platonow could only reveal the details of what it concerns – it’s a “discovery” of some kind – when he is here. And would only do so to an Extraordinary Biosphere Commission, formally.’

‘An Extraordinary Biosphere Commission?’

‘In one of the obscure appendices to the Concordat, provision is made for convening a meeting, in cases of what it calls “matters pertaining to the safety of our common biosphere”, of representatives of the Bureaucracy, Afrika Minor and the Antarkian Commonwealth, and which may be held in camera if one of the parties requests it. The last time one was convened was two centuries ago. They were quite commonly convened during the years after the Twilight. The Concordat also specifies that Impæriya host it.’

‘In camera?’

‘Behind closed doors. The Antarkians wish that the deliberations be kept confidential.’

‘That is unlike them.’

‘And rather optimistic,’ he said. ‘I want you to meet them.’

‘Them?’

‘This Ziddhartha Platonow will be not be alone. But he didn’t

say who would be accompanying him. An interpreter, some clerks, I imagine.'

'Why me? What does any of this have to do with the Antiquities Bureau?'

'This "discovery" is most likely something they found in the Wilderness. That is the domain of the Antiquities Bureau.'

The Antiquities Bureau had legal jurisdiction over the entirety of the Wilderness, in theory at any rate. The reality, as always, was somewhat more complicated. There were vast stretches of the Wilderness where no one had set foot for decades. Under the terms of the Concordat the Afrikan manna-plant zones were out of bounds. And the far southern regions, where legally questionable entrepreneurial expeditions by various Antarkian groups were not infrequent, were only minimally monitored. Attempting to control the companies that engaged in the grey trade, the illicit trade in Protocol 3 phantomatic micro-simneuralators and phantomatic chips – phan-chips – was a pointless and unenforceable exercise. And the fact that salvaged phan-chips could only be used two or three times at the most, and generated but a pale, though undeniably potent, shadow of the hyper-phantomaticity that the neo-ancient boolean networks had been capable of, made the endeavour even more pointless. The original reason for the phantomatics interdiction was the belief that 'hyperreal' phantomaticity caused immersers to absent themselves so completely from 'real' and devalue it to such a degree that it engendered an utter indifference to the destruction of the 'real', notwithstanding that the 'real' was a philosophically complex, and some would even say dubious, concept at the best of times. True discoveries were rare in all the physical sciences, which for the most part concerned themselves with the rediscovery and confirming the accuracy or otherwise of what was in the archives. Or, more precisely, what was accessible. Most of the neo-ancients records that had survived were in the form of printed materials, despite untold millions of books having been burned in outbursts of conflagratory madness during the Rampage, the 'great

purification'. Or simply used for fuel in the immediate aftermath of the Twilight. The boolean data storage devices – those that had survived the Rampage – of which tens of thousands had been recovered, were for the most part inaccessible, for technical and cryptographical reasons. However, discoveries in the observational sciences, especially in biology, were hardly uncommon. Mutations in the animal and plant species that had survived the neo-ancient epoch and the Twilight were frequently observed, as were previously unrecorded asteroids and comets.

'Or think they've found,' he added. 'Our Antarkian friends are prone to be overly imaginative at times, to put it mildly. I find it difficult to distinguish their religion with its elementals and ... what are they called? – kobolds? ... from primitive animism.'

Xanadu had often tried to explain to her the Antarkian concept of what they called something like *glimpsed-hazily-imagined*, a word impossible to accurately translate; but that was the nearest approximation she could think of. It referred to the ability to glimpse realities – imperfectly, Antarkians admitted – not perceivable to the senses. Impæriyans mistook it for the merely imagined, the fanciful.

'To assume that trees and plants possess a form of consciousness is not more irrational than to assume that they do not,' she said. It was something that Xanadu had said to her once, a long time ago. 'For Antarkians the world is infused with consciousness, the divine is immanent, and the world is a forever-thing, time cyclical, spiral, multidimensional.'

Equally misunderstood was the Antarkian belief that the human personality could only be adequately described in terms of multiple selves. And then there was psycho-liminatics ...

'As for primitive animism,' she added, 'the world does after all consist of forces which are mostly beyond our control.'

'I am not entirely ignorant of Antarkian metaphorics,' he said scathingly, 'of the belief systems common in the land of a thousand utopias.'

No Antarkian ever used that phrase without irony, but she let it pass.

‘Nor of the equally imaginative doctrines of Cosmological Christianity,’ he added.

‘When is this Platonow arriving?’

‘He’s probably halfway here by now. But you know how unreliable these pole-to-pole aero-liners can be. He could be here in two weeks though.’

‘And who shall represent the Sovranty at this Biosphere Commission?’

‘The Nuncio is returning especially to attend.’

As the permanent representative of the Ecclesiastical Sovranty of Afrika Minor, or his ‘masters in Roma Nova’ as he liked to put it, Hamlet Kemale spent half the year in Polærisgradt. He was a big man, slightly overweight, with a mane of long, free-flowing, slate-grey hair, and usually wore a long Afrikan robe. The few times Hoffmann had met him, invariably at official events, he would sometimes – deliberately, she was sure – let fall the mask of formality and come out with some witty or ironic comment, gently intimating that the whole official round was a game, and that he knew it, and she knew it, and they both knew that the other knew it. He liked to cultivate an air of mystery around himself. As for his religion, she never knew what to make of its symbolic blood drinking and striving to partake in closer symbiosis with eternal becoming, and all the rest of its theo-systemics. On one occasion when, admittedly, he had consumed a few glasses of Irlandia wine, he had admitted that it was ‘absurd’. ‘But then, are not the absurd and the sublime inseparable?’ he’d said. ‘As in great art, or the erotic. *Credo quai absurdum.*’ Which, he explained, meant ‘I believe because it is absurd’. Then he had winked at her. For a moment she’d thought it was sexual; but she’d ignored it. The Impæriyan attitude to the sexual was that the ideal was sublimation; and homoerotic, though they rarely admitted as much explicitly. But she doubted Kemale was the sublimating type. And she suspected that he was not adverse to indulging in

illicit phantomatics on occasion. Like most Afrikans, he wore a variety of floral scents. Impæriyans rarely wore any; Antarkians usually wore a maritime sea scent called ambrox. He hated aeroliners, he'd said once; he suffered from airsickness.

'Platonow and his entourage will need accommodation, showing around, chaperoning,' Dianovitch continued. 'I would appreciate it if you could handle that, be the official liaison between him and the Secretariat. The Nuncio can take care of himself. He knows how things work.'

Surely some Guardianship Secretariat official would be perfectly capable of receiving and chaperoning this Platonow, she thought. But perhaps Dianovitch wanted to mend fences. It was possible.

'You might be able to get some information about what they claim to have discovered,' he added, as if he had read her thoughts, 'before any official announcement. Which could be useful.'

She nodded, non-committally.

'Excellent,' he said, misinterpreting her nod for agreement. But she did not object. 'We have our differences ... but I don't doubt your competence. I'm indisposed over the next few weeks and will be out of circulation. Otherwise, I'd do it myself.'

She somehow doubted that was true.

'I'd be more than happy to discuss our differences sometime,' she said. 'If you ever feel so inclined.'

The statement was unpremeditated; she was not at all sure why she made it. He was silent for a moment.

'My position is not only that of the majority of the Gildija, but also of the other States,' he said. 'It is a position that has served us well for centuries. The day will come when it will need to be revised – but that day, in my humble opinion, is a long way off. You dissenters are a minority and, if I may say so, faction-ridden ... your ideas largely incoherent.'

But a growing minority within the Gildija, she thought, and let him continue.

'First, do no harm ...' he added. 'We don't know enough. We would most likely do harm. Maintaining planetary sociopolitical arrangements in a state of equilibrium requires caution.'

The Gildija's official purpose was to preserve only those remnants of neo-ancient technology that needed to be preserved and to prevent any reoccurrence of the capitalocratic exponentialism that had cumulated in the Twilight. But, she had to admit, Dianovitch was not incorrect in describing the dissenter movement as faction-ridden and largely incoherent. She was not at all sure that any of the dissenter factions had any ideas that were in reality viable. But then, ideas that changed ways of thinking were like crystals. They achieved precision only after long incubation in a soup of concept fragments. Perhaps the groups coalescing around Siemens might seed some viable crystals.

'Social stasis,' she began, 'has never led to anything other than cultural decline—'

The phone on Dianovitch's desk rang.

He picked up the receiver.

Hoffmann could not make out what the voice on the other end of the line was saying. It sounded like the reception desk.

'Yes, yes, send her up,' Dianovitch said. 'My meeting with Antiquarian Karthika Hoffmann is concluded.' He replaced the receiver. 'I'm afraid we shall have to continue our philosophical discussion another time. Duty calls. But I think we have covered everything. I'll see to it that the necessary paperwork gets to you in the next couple of days.'

'I thank you for the tea,' Hoffmann said, as she was leaving.

'My pleasure,' he said. 'You can leave the door open.'

In the corridor, a muscular, purple-haired woman of perhaps forty passed her. Hoffmann recognised her instantly. It was Dahon Quastimodo. They'd met before. But she simply nodded at Hoffmann, seemingly not remembering, before entering Dianovitch's office. Quastimodo was one of his 'agents', through officially she belonged to some obscure department of the States-General Directorate.

5

The *Humboldt* was a recent addition – it was only thirty years old – to the Interpolar aero-liner fleet. For the first several days, as they flew over the Southern Ocean towards Impæriya, Xanadu was confined to her berth by nauseous bouts of air sickness, exacerbated by the monotonous hum of the solar engines. However, a few times she managed to conjure up enough energy to join Platonow on the viewing deck, a cage-like, pod-like structure under the bridge of the gondola. Occasionally, when there were gaps in the carpet of fleecy grey-white clouds they were flying over, they caught glimpses of the endless expanse of blue-grey waters below them and chemical orange algae blooms.

She had recovered by the time they were over the Afrikan Wilderness and, on cloud-free days, they were able to see the expanses of cadmium yellows and browns, bare and wind-eroded hills, dried-out lakes, and the meandering wadis of formerly mighty rivers. It was hard to believe that it had once been a teeming, living world of countless gazelles, zebras, giraffes, wild elephants and other large mammals, all now and forever more to exist only in an unattainable past. The sunsets, which they watched every evening, transformed the evening skies above the clouds into a blazing spectrum of splendid reds, purples, blues, greys and streaks of greens. The nights were full of stars twinkling in the endless darkness of space; and, while the cloud-blanketed planet below them was shrouded in an even more complete darkness, she scanned the Milky Way with her monocular. Sometimes, in gaps in the clouds, it was possible to make out faint lights below: a wildfire perhaps – they were known to occur where there was still some grassland – or even a Kinvolk campfire. When there was a bright moon, its spectral light would momentarily reveal the ethereal contours of hills

and plains.

One day they passed a Pesochinsky Chimney, one of the higher ones, the top of it looming up through the clouds; another failed attempt by the neo-ancients to cool the biosphere by channelling warm air into the upper atmosphere.

As they approached the equator the *Humboldt* changed to a north-west course and headed out over the ocean. Occasionally, they saw windjammers sailing over the green-grey waters below them – from so high up, they looked like toy miniatures – carrying therak, tea or rice, southwards to the Antarkian Commonwealths, and Antarkian rare minerals northwards to Afrika Minor and Impæriya. Once they spotted a flock of terns migrating polewards for the northern summer.

They crossed the equator and changed to a due north course, skirting up the coast of the Green Sahara, the land of warm rains and lush tropical vegetation, the result of a climatic anomaly, the causes of which were not very well understood. They caught glimpses of the coastline now and again: a thin streak of green, through the morning mists. Fifteen thousand years ago, in prehistorical times, the Sahara had also been green.

A week later, the headlands, wooded countryside and lakes of Irlandia appeared. The land of vineyards and olive groves. And as darkness fell, they saw the lights of its coastal settlements. The nights were now becoming considerably shorter.

‘It must be different living among the ruins and monuments of one’s ancestors,’ Xanadu said, ‘among their marks upon the land.’

Platonow looked at her, not understanding what exactly she meant. The moonlight, shining through the lattice of the viewing deck’s safety cage, was casting thin rectangular shadows across his face.

‘People have been living down there for millennia,’ she added. ‘That’s not true for many places anymore.’

The *Humboldt* left the Irlandia coast behind it and continued northwards towards the Arctic Sea. The air became noticeably cooler and fresher. One night, for several hours, wrapped up

against the cold, they watched hundreds of meteors streak across the velvet darkness above them.

Then one afternoon, as they were sharing a flask of tea, they saw a thin, flat band of slate-grey clouds in the distance, on the horizon, directly ahead of them.

‘That looks ominous,’ Platonow said.

Xanadu examined it through her monocular. Every few seconds, under the pancake-like cloud formation she could see sudden bursts of lightning. It was a long way away but she knew immediately what it was.

‘A zurbo-cyclone,’ she said.

Usually, zurbo-cyclones were detected by the radar system before they were visually sighted, but not always. An aero-liner could be sucked into one by its circling winds and carried hundreds of kilometres off course, or worse.

‘Are those lightning flashes?’ he asked.

‘Yes.’

But just then they felt the giant, hydrogen-N-filled canvas envelope above them stall and shudder for a few moments. The *Humboldt* was changing course, slowly turning eastwards.



Hoffmann looked at her pocket watch again. It was already thirteen o’clock. Dolkar Ögedei was late. When Hoffmann had learned of the tekgenicist’s arrival in Polærisgradt – from the Archipelago, from the Island of the Spheres – she had contacted her immediately.

The sky was grey but it did not feel as if it was about to rain. The days were now longer than the nights, and growing longer. And despite the breeze, the steely, green Arctic Sea was near-waveless.

She took a breath of therak.

Whatever the Antarkians had found must be particularly unusual. Normally, when they informed the Antiquities Bureau of a discovery, which was not that often, they just sent them a brief description of the find and site coordinates. A range of

possibilities went through her mind: toxic chemicals, radioactive materials, weaponry ... even something biological. Bioweapon material was unlikely to have survived intact, but it was possible. And unexpected artefacts were uncovered: things that they suspected existed from mentions in the archives. Despite the mindless destruction, during the Rampage, of countless boolean storage devices and of all technology related to cosmonautics or the generation of phantomatic worlds, some items had miraculously survived. Entire sites had been incinerated. But since then, over the years, considerable quantities of viable Protocol 3 items had disappeared, semi-legally, into the extensive network of the Gildija's storage facilities.

Another of the tasks of the Antiquities Bureau was to catalogue and identify depositories for radioactive waste from nuclear fission plants, decommissioned nuclear weapons, and for toxic chemicals. But nobody had devised a foolproof semiotic method to convey the message DANGER – CONTAMINATED AREA – DO NOT ENTER in such a way so that it would be understood in ten thousand years, or further into the future. The stone warning obelisks that had been erected at what were considered the most dangerous sites were only a temporary solution. Not that the Kinvolk took any notice of them.

Dolkar Ögedei's lectures, given to small gatherings in the oversized lecture chamber at the Ehrengow Institute over two decades ago, had led to the initial conspiratorial meetings. Hoffmann still remembered the first lecture she had attended. Siemens had been there, and Mao-Te. Wallace had attended some of them, bemusedly and typically observing all from a distance; but then, they were several hundred years old, one of the last of their kind; not even cybionoids lived forever.

'The continuance of civilised human life,' Ögedei had said, 'depends on two crucial things. The transmutation of manna into therak and the tekgenics process. Few of us' – most of the audience had been over thirty – 'would not be here were it not

for the manna-therak transmutation process. Of course, there is always the possibility that the manna plant might mutate, and stop producing the Black Bread of Life. The plant could even be wiped out by some disease. These are possibilities that we should not lose sight of, but there is little we can do about such eventualities. However, the tekgenic process is a different matter.

‘The biochemical techniques used in tekgenic reproduction, from initial ovum and sperm cell selection and embryo nurture, through to implantation, gestation and fruition, require a range of sophisticated equipment. High-precision scanners, microscopes, selectors, rejection inhibitors, laboratory and medical apparatus. We can no longer manufacture most of these items. We have not been able to do so for several hundred years. Luckily, most of the neo-ancient equipment we use is extraordinarily robust. But, inevitably, over the centuries, things degrade.’

Post-Twilight humankind, if it was to remain civilised, could never go back to natural reproduction. Humankind’s current predicament was similar to that confronted by hunter-gatherer societies after the transition to agriculture. Once the transition had taken place, reverting to gatherer-hunting would not have been possible without a drastic reduction in population. Without tekgenic technology, humankind would be reduced to a hand-to-mouth existence and subject to all the horrors contiguous to natural reproduction on a contaminated planet.

‘Three hundred years ago,’ she’d told them, ‘we were capable of doing implantations when embryos were two weeks old. Our scanning technology was good enough to verify if a two-week-old embryo was viable and healthy and in all probability remain so for the period of gestation and the first years of life. After which, of course, its genetic integrity could be maintained in a healthy state, thanks to the miraculous effects of therak. And I say *miraculous* deliberately. For how therak works is still little understood. But today we can only verify that an embryo is viable and healthy and suitable for implantation at six weeks.’

And in addition to all that, there was the slow disintegration of the Landauer Shield.

Hoffmann saw a figure in the distance, cycling up the gravelled path towards her.

‘Apologies for the delay,’ the plump, gold-haired woman of about forty-five years of age said, taking a seat on the bench beside Hoffmann. ‘So what is all this about? Your message was cryptic.’

Hoffman described the meeting she had had with Liam Dianovitch.

‘If this Platonow’s discovery is as important as he says it is,’ she said, ‘it would be to our advantage if we knew what it was before he officially announces it to the Biosphere Commission. Of course, the whole thing might be something entirely overblown.’

She then told Ögedei what she had in mind.

‘If this discovery is important,’ she said finally, ‘there’s no harm in being one step ahead.’

‘When does this Platonow arrive?’

‘In a few days. Depending on the winds.’

6

It was still night – if the few hours of ethereal semi-darkness could be called night – when Xanadu saw the lights of Polærisgradt from the viewing deck. They were cruising at a height of five thousand metres, but in about an hour they would begin their slow descent. The sky was near-cloudless and the Milky Way stretched across the moonless heavens like a giant splash of luminous algae. Below, the sea was a pitch-black expanse except for the distant lights of the odd windjammer.

Two decades ago, she had come by sea, stopping only for a few hours at Port Teanegri on the Afrika Minor coast to take on a cargo of fifty casks of therak. She remembered seeing, one clear blue-grey day, the half-submerged ruins of London and Rotterdam, their decaying neo-ancient towers rising out of the waters, silent witnesses of what had been; and the remains of the dykes that had once been constructed along stretches of the West Urasian coast in a vain attempt to hold back the rising waters.

The dawn sun, a fire-orange globe glowing through a veil of grey, white and purple clouds, was rising when they finally reached Spitzland. As they descended, the landscape below became visible. It was green and brown and shrouded in mist. And, as the mist dissipated, she saw a large lake, its surface shimmering in the morning light, and fields of glittering aero-harvesters.

‘A radio message has just come through,’ Platonow said as he joined her. ‘Somebody will meet us at the aerodrome. At fifteen o’clock.’ Like Antarkia, Impæriya had no time zones; they made little sense at the poles. Afrika Minor, covering only a few degrees of latitude, had no need for time zones either. So in effect, there was only Afrika Minor time. ‘Her name is

Hoffmann. She sent greetings to you. Do you know her?’

‘Karthika Hoffmann?’

‘She’s from the Antiquities Bureau.’

‘Yes, I do. Or did. We were close once.’

‘She was a tutor at the Academy in Minskow,’ Xanadu said.

‘She taught me Impæriyan.’

And much more. She remembered the endless times she and Karthika had lain on her large sleeping mat together, talking long into polar nights about everything under the moon and the sun, and how she used to tell her how Antarkians saw the world. Hoffmann had been fascinated by it all: by such concepts as the dimensions of being, the coetaneous symbolic nature of the physical world; and psycho-liminatics, the practice of attempting to align one’s will to the will of the cosmos. But like most Impæriyans, she regarded it all as little more than metaphysical exotica. Impæriyans were too much in love with their sense of the world as tragedy – and their linear sense of time – to take too seriously that which they could not see or touch in some manner or another. And they were still wedded to a physics that sought the key to scientific wisdom in the micro-components of the universe rather than in the macrocosmic whole.

‘Minskow?’

‘It’s a city on the edge of the Wilderness. Barely habitable. Quite old. Dates back to the early neo-ancient period. There are even some late neo-ancient buildings still in use. I spent a summer there.’

It was with Hoffmann that she had first ventured into the Wilderness. The northern regions could be camped out in for weeks at a time in reasonable comfort; except during the height of summer and the heatwaves. There were salvaging bases, supplied entirely from the outside, which were occupied nearly all year round, though usually temporarily evacuated whenever the temperatures reached plus 50 °C. Neo-ancient waste disposal sites were pretty much the only source of minerals, except for the rare-mineral mines of Antarkia. They had spent a

month walkabouting, leisurely following a wadi. She still had her sketch book from then, which she'd filled with drawings of settlements turned to rubble and dust, the remains of highways that had once led somewhere, and the sparse, gnarled, dead-looking Wilderness vegetation. Once they'd come across the ruins of an early Christian abbey, its walls with their arched windows still standing, sentinel-like, defying the ravages of time. It must have been over two thousand years old, pre-industrial. Built of granite and limestone, many Christian buildings were in a remarkable state of preservation and possessed that kind of beauty that only ruins have. At times, sleeping under the late spring night sky, she had felt presences, the preternatural remnants of the human and animal souls who had once inhabited the landscape. They'd avoided the ruins of big cities, which were often infested with swarms of Karpathian virus-carrying GOB-E1-IN ticks. The origin of these near-microscopic insects, which not even the neo-ancients had managed to eradicate, was unknown; they were most likely the result of some bioengineering experiment gone wrong. Karpathian fever was curable, but the delirium came on so suddenly, in a matter of minutes, rendering the afflicted unable to give themselves the three, spaced anti-GOB-E1-IN intramuscular injections needed to cure it. Death could occur within twenty-four hours.

Platonow was gazing at her quizzically.

'It was a long time ago,' she said.

'Well, it seems she's to be our liaison.'

More details of the land below them became visible: fields and individual clusters of buildings, and roads. Some of the mountain peaks, from which Spitzland got its name, were still white with snow after the long Arctic winter.

A crackling male voice on the intercom instructed them to take their seats and fasten themselves in for the landing. Minutes later, there was the hiss of hydrogen-N being vented from the *Humboldt's* great, seagull-grey envelope above their heads, and the gondola began to rock uncomfortably from side

to side.

‘Near-surface turbulence,’ Platonow reassured her.

Five minutes later they were over the Polærisgradt Aerodrome and the solar engines cut out, then they heard the anchor rope being lowered.



Hoffmann was waiting for them at the edge of the airfield. Xanadu recognised her immediately. She bowed to them as they approached her, the Impæriyan bow, a quick, almost casual gesture, strangely both formal and informal; and they reciprocated, Platonow awkwardly. She was a small woman, smaller than Platonow even, in her sixties, athletic looking. She was wearing the anachronistic semi-uniform of the Antiquities Bureau – grey, brass-buttoned, collarless tunic jacket, loose grey trousers, and black hiking boots – with a casualness that belied its quasi-military origin. She also wore a pistol in a flapped holster on a shoulder belt. Under the terms of the Concordat, the only two organisations permitted to bear arms were the Antiquities Bureau and the Kohors Helvetika. Automatic weapons or explosive projectiles were banned completely.

As the three of them conversed – in Ænglisk – in the aerodrome canteen over bowls of chilli-flavoured coffee while they waited for the monorail, Xanadu found it difficult to believe that it was nearly twenty years since they had last met. She found herself wondering how, and how much, Hoffmann had changed in the intervening time. Superficially surprisingly little, it seemed, though she did come across as more serious-minded, less reverential than she had been.

‘Has the Nuncio arrived?’ Xanadu asked.

‘No. Not yet.’

The monorail to Polærisgradt reached a speed of at least seventy kilometres an hour at times, which was far faster than any in Antarkia. The Impæriyan network was at least ten times the size of all the Antarkian networks. It was possible, taking only two windjammer journeys, to circumnavigate the pole on

the Northern Rim electro-steam duorail. For most of the journey, the route hugged the coastline but occasionally it cut through heather- and bracken-covered hills. Once, Xanadu spotted a bird of prey perched on a gatepost looking out to sea. A kite, Hoffmann informed her.

‘The climate on the islands along northern coastlines is maritime,’ Hoffmann said to Platonow. Rain had begun to drift in from the sea and the compartment windows were fogging up. ‘Wet warm summers and wetter, cold winters. Further south, as one approaches the borderlands, the summers get hotter and drier, and the winters drier.’

The outskirts of Polærisgradt brought back memories. Impæriyan buildings were mainly square, compact, unpainted, and generally larger – many were three or four storeys high – than the round buildings of Antarkian communes. The radio-television aerials on the brick chimneys reminded her of how she’d been fascinated by the black-and-white moving images, broadcast for several hours a day from ten or so transmitting stations, when she had first seen them. Antarkia didn’t have radio-television, and neither did Afrika Minor. She noticed the fruit trees in the gardens were beginning to bud. Eventually, they were going down the middle of a wide, tree-lined boulevard.

‘Welcome to Polærisgradt,’ Hoffmann said, again acting the tour guide. ‘Population: one million, or thereabouts.’

The city centre was a bustle of electric trolleybuses, velocipedes, crawlers, steamers, donkey-drawn carriages, and streams of countless pedestrians. They passed general stores; shops selling and repairing sewing machines, clothes, electrical goods and footwear; eateries and teahouses; and gazette kiosks. New Ananthapuri, which had a population of about two hundred thousand souls, was a sleepy backwater in comparison.

The monorail made a halt in front of the marble-façade of the House of the States-General Doma, a gigantic green-domed building. Antarkia had nothing to match it in terms of height or size. Its clock tower was even higher than the Saint Peter and

the Magdalene's minaret in Roma Nova. A group of youths, in tunic jackets and padded doublets of various colours were lounging about at the stepped base of the Harmonia Triumphant statue, drinking from ceramic bottles. The weather-worn bronze female colossus, holding five equally balanced scales, was at least four times life-size.

'Why five?' Platonow asked.

'They represent the five States,' Hoffmann said. 'The Gildija, the Cantons, the Craft Lodges, the Assembly and the Congress of Realms.'

'Oh, of course,' Platonow said. 'The members of the Assembly are selected each winter equinox by a combination of elections and by lot. The Congress of Realms is composed of the territoryless or uninhabitable remnants of an eclectic assortment of neo-ancient sovereign entities that still legally exist. Xanadu has been tutoring me in the mechanisms of the Impæriyan constitution.'

'We alight here,' Hoffman said a few minutes later. 'The Narwhale Hostelry is one of the best in the city. I've arranged ration cards for you.'

The Narwhale was a three-storey building with large bay windows and a portico entrance. A mural on the façade depicted one of the extinct single-tusked marine mammals swimming upwards towards the underside of a sheet of sea ice.

Platonow paused to look at it for a moment.

'Only males had tusks,' Hoffmann informed him. 'The species disappeared when the sea ice went.'

They registered and were given their ration cards.

'I've taken the liberty of arranging a welcome meal for you this evening,' Hoffmann said. 'Nothing formal. Just a few senior Gildijans who would like to make your acquaintance.'

'It will be a pleasure,' Xanadu said.

'They are people of some influence, people used to dealing with sensitive matters,' Hoffmann added, with some hesitation.

When Hoffmann had said her farewells – and they had again exchanged bows – Xanadu and Platonow arranged to breakfast

after they had unpacked and washed.

The Narwhale's canteen was a large glass-ceilinged extension to the main hostelry building. It was dominated by ten or so large potted plants of various species.

'I could grow accustomed to this,' Platonow said, referring to the relative luxury of the place compared to Antarkian hostelries, as he devoured a plate of garlic-fried potatoes. 'The rye bread is excellent.'

'Polærisgradt is renowned for its cuisine, if not for the subtlety of its architecture. But on the other hand, it does have twenty times as many cinematoriums as New Ananthapuri.'

Platonow poured himself more tea and extracted his vaporiser from his waist pouch.

'So,' she said, 'what is your impression?'

'It's different to what I imagined.'

'Places always are.'

He inhaled a breath of therak, and closed his eyes for a few moments, a habit of his when asked a question he needed to think about, and which had the effect of making him look more gnome-like.

'Hoffmann's uniform-type outfit ...'

'Dress indicates one's craft or trade,' she said, 'the guild somebody belongs to, one's position, mostly ... There are hierarchies within the guilds – of sorts – more lines of command than anything to do with status ... but not between the guilds. Everyone is in some kind of guild or other.'

'And each guild has pretty much a veto on how the State it belongs to votes in the States-General Doma?'

'More or less. Little is decided unless a majority of representatives from each of the States agree, and it's the same for the election of the members of the Executive Committee and the Selectors of Judges.' She took out her vaporiser. 'Impæriyans believe that the cause of the collapse of neo-ancient civilisation, boolean capitalocratic civilisation – and the Twilight – was a lack of what they call collective rationality. While we—'

‘Believe that the cause was a failure of to develop psychomystically, not to see that the cosmos, all living things, even matter, are suffused with a degree of psyche. And the Cosmological Church believes it was what they call the technocratic paradigm.’

‘But the one thing we have in common is that all of our systems of governance are designed to prevent the reemergence of any kind of capitalocracy,’ she said. ‘Though mistaking the causes of one’s ills and why one has overcome them is easily done. Which brings us to this evening ...’

‘I have a feeling that these Gildijans we are to meet are going to ask a lot of questions,’ he said. ‘Strictly speaking, our official announcement should be to the Biosphere Commission. Not to an informal group at ... a dinner party. What do you think? You know these people.’

‘Be honest. Explain our misgivings to them. Diplomatically. If they press us to reveal more than we should. But bear in mind that it may also be a way for us to open some doors, build a rapport with some people.’

‘People of some influence who are used to dealing with sensitive matters,’ he added, repeating what Hoffmann had said.

‘We want the Biosphere Commission to take us seriously, not merely treat us politely.’

He considered this for a moment.

7

After a twenty-minute journey through the dusk, the crawler-taxi dropped Xanadu, Platonow and Hoffmann at the arched, gateless gateway to a large house in the outskirts of Polærisgradt. They were met at the door by a woman of perhaps fifty years of age, with a clean-shaven head, wearing an archaic semi-uniform similar to Hoffmann's. She introduced herself as 'Historian Siemens' and led them down a timber-floored corridor to a dimly lit dining hall. Two Gildijans, rose from their cushions at the low round table and, bowing casually, introduced themselves. One was Tekgenicist Dolkar Ögedei. The other was Anthropologist Mao-Te. A pleasant resin scent was emanating from the wood burning in the pot-bellied stove. There were several paintings on the walls. Most of them monumentalist, Xanadu noticed, but there were also two eroticist works in the semi-realist style typical of much Impæriyan art.

The meal consisted of several large plates of fried sweet potatoes and Afrikan rice, with an array of fish-garlic flavoured sauces, several loaves of different Impæriyan rye breads, and a salad of greens and flowery plants. Notwithstanding the Impæriyans' reputation as lovers of strong alcohol, there were several jugs of weak, herb-spiked beer and iced water to drink.

Mao-Te did most of the talking initially. He was a tall lean man, with pronouncedly angular features, brown-green eyes, and bushy eyebrows the same colour as his long mane of silver-grey hair.

'I did field research in the foothills of the Khöndlön Uuls a few years back,' Mao-Te told them. They were conversing in Ænglisk. 'Did a lot of serious walkabouting. The Wilderness is not an unvarying expanse of sand, rock, and ruins. Most places will get rain a few days a year. Torrential rain that falls from the

heavens like the wrath of the gods, and floods the parched landscape. The Kinvolk seem to sense when it's coming. But the Wilderness blooms when the flood waters have receded, and that is a wonder to behold. All kinds of plants suddenly sprout, bloom and seed, and disappear again. But alas, only for a few days. Flying insects are quite common, even, in some places. Beetles mainly. The Kinvolk clans usually consist of a few hundred individuals. But most of the time, they wander about in small groups of twenty to thirty, foraging, only meeting up in larger groups once or twice a year. They scavenge for neo-ancient artefacts, and grey trade equipment. They know what is valuable. There are trade networks.'

Unlike in Impæriya, the clandestine market for Protocol 3 phantomatic micro-simneuralators and phan-chips was practically non-existent in Antarkia.

He continued: 'Therak is a currency among them. Many of them would not get to child-producing age if they didn't use it. But they don't take it regularly enough. So, as you can imagine, life expectancy is horrifyingly short.'

One of the eroticist paintings was of a younger couple; the other was of an older threesome, posing as if they were sitting for formal portraits. Typical Impæriyan erotica, devoid of any of the psycho-mystical symbolism found in Antarkian erotic art.

'The primeval condition,' Platonow suggested, helping himself to a second portion of rice. 'And what about ...?'

'Reproduction?'

'Yes.'

'The women generally abort naturally in the first few weeks if they are carrying a deformed embryo,' Mao-Te continued. 'One live birth per four or even five pregnancies is the norm. Which, as one can imagine, takes its toll. Infanticide is also common. All rather gruesome to the outside observer. But, not that it's any consolation, I think that human responses to traumatic distress are more variable than we normally assume. Or to put it more bluntly: the human animal does not respond emotionally and psychologically to events and circumstances in

the same way or with the intensity across time and cultures. But they are not *primaeval*. They are what the neo-ancients became.'

'As we are,' Siemens added.

'However,' Mao-Te said, 'these days the subject of my curiosity is the Bogland-Kinvolk, in the Rim Boglands.'

The Rim Boglands were wetland enclaves dotted along the northern coast of Urasia. The larger ones were inhabited by small Kinvolk groups who had somehow managed to gradually migrate north through sparsely populated Impæriyan territory.

'Mao-Te,' Dolkar Ögedei said, 'believes that the Kinvolk are evolving ... biologically.'

'As opposed to culturally and socially?' Platonow said.

'Humankind – we – stopped evolving biologically, in any real significant sense, at least a hundred thousand years ago, possibly even before that,' Mao-Te said. 'Genetically, there is practically no difference between ourselves and a palaeolithic human. Some superficial differentiation has occurred: different hair colours, eye colours, skin pigmentations, that sort of thing. And up to late neo-ancient times, before the development of anaesthetics, antibacterials, antivirals, vaccines and regenaceuticals, there was periodic selection for immunity to infectious diseases. Tekgenics pretty much precludes the possibility of any naturally occurring mutations at all. But the Kinvolk live in a contaminated environment in which genetic mutations occur at a manyfold greater rate than they normally would.'

'I think,' Dolkar Ögedei said, deciding it was time to raise the issue of the occasion of their gathering, 'we need to discuss the reason we are all here.'

Xanadu exchanged glances with Platonow.

'I am sure,' she continued, 'that you find it somewhat irregular that we have invited you here this evening to discuss this discovery of yours with us before you have the opportunity of disclosing it to the Biosphere Commission—'

'Somewhat,' Platonow said. Her broaching the subject of their

misgivings so directly was not something they had anticipated. 'But it is only natural that you should be curious.'

Dolkar Ögedei nodded politely.

'In your correspondence,' she went on, 'you said that it concerns an extraordinary scientific discovery ...'

'Yes, that is correct,' Platonow said.

'The truth is that here in Impæriya, Ziddhartha Platonow,' she said, 'decision-making can move extremely slowly. And you did say in your correspondence that this discovery of yours was urgent.'

Addressing a person by their full name, Xanadu had informed him earlier, was a gesture of respect.

Siemens, who had left the table for a few moments during this exchange, returned bearing an ornate and antique-looking vaporiser.

'We – Historian Siemens, Anthropologist Mao-Te, Karthika Hoffmann, and myself – are not without influence,' Dolkar Ögedei continued. 'We may be in a position to, let us say, expedite proceedings.'

'I see,' Platonow said non-committally.

'However ...' she added, but left the sentence uncompleted.

'You would need to know the details of our discovery,' Platonow said, completing it for her, 'in order to offer such assistance.'

'Precisely,' she said.

Platonow looked at Xanadu, wondering if he should continue to do the talking. She gave him a barely perceptible but affirmative nod.

'About three months ago,' he began, 'Indraghosh sighted an object. The initial assumption was that it was a comet or asteroid. But it soon became apparent that it was from interstellar space, from outside the solar system. They have named it the Object from the Stars.'

'The Object from the Stars!' Hoffmann repeated, trying not to sound too bemused by the unoriginality of the name.

'It sounds more elegant in Sanskrit,' Xanadu explained.

The Indraghosh Observatory was an assemblage of optical telescopes situated in the mountains of Cape Amerikaz, high above the clouds and atmospheric distortion, and only easily reachable by dirigible. Like all observatories, it had largely been assembled from scavenged neo-ancient equipment.

‘That’s hardly that unusual, is it?’ Siemens said.

‘Not in itself,’ Platonow said. ‘There are numerous accounts in the archives of observations of interstellar objects entering the solar system. They are invariably either captured by the gravitational field of the sun or simply exit back out again.’

‘How did you detect it?’ Siemens asked.

‘By pure chance,’ he continued. ‘That’s usually the case with these things. Or luck. There are very few hours of astronomical darkness at that time of the year in Antarkia. It is very bright, far brighter than one would expect from an object of its estimated size, though its luminosity is variable. Its origin, or rather the general direction it’s approaching us from, is the Centaurus constellation.’

‘Which is not visible this far north,’ Xanadu added.

‘We have calculated its trajectory, speed and mass,’ Platonow went on, ‘but it still hasn’t been possible to determine its volume with any accuracy. But it’s not very large. Definitely less than a kilometre in diameter, though it seems to be quite irregularly shaped. Right now, it’s four hundred million kilometres out from the sun. In the asteroid belt. But its unusual brightness makes it possible to track it. It’s expected to reach the inner planets within weeks.’

‘And you think there’s a danger of it colliding with Earth?’ Siemens said.

‘No,’ Platonow said. ‘That is not what we are concerned about.’

‘So what are you concerned about?’

‘It is moving at a tremendous speed, which is not that unusual ...’

‘Go on,’ Dolkar Ögedei said.

‘It is decelerating.’

‘I don’t quite follow,’ she said.

‘Normally an object that enters the solar system is attracted by the mass of the sun and accelerates towards it. And ultimately it either falls into the sun or goes into a solar orbit. Or if it has sufficient velocity and misses the sun, goes back out into interstellar space again. In any case, it would accelerate.’

‘Unless it came under the influence of the gravitational field of one of the planets,’ Dolkar Ögedei suggested.

‘True,’ Platonow admitted, ‘But that does not seem to be what is happening.’

‘Please continue,’ Siemens said.

‘Another anomaly is its luminosity, which as I’ve said is unusually bright. But it is also variable. At its brightest, it’s ten times brighter than one would expect a comet or an asteroid to be.’

The Gildijans exchanged glances. Xanadu wondered what they were thinking. Impæriyans viewed Antarkians as rather fantasy-prone.

‘Are you suggesting ...?’ Dolkar Ögedei said, leaving the sentence unfinished. It was obvious what she was thinking.

‘Our galaxy alone consists of a billion suns with billions of planets orbiting them,’ Platonow went on. ‘The neo-ancients catalogued several hundred thousand. Biosignatures were detected on thousands of them. And there are billions of moons orbiting those planets.’

‘Biosignatures?’ Mao-Te said.

‘Spectrographic evidence of gases in exoplanet atmospheres which could indicate biological activity,’ Ögedei explained.

‘There are over ten thousand stars within a fifty-lightyear radius of the solar system,’ Platonow continued, ‘eighty per cent of which have planetary systems. There are references in the archives to evidence that there were once indigenous lifeforms on Mars—’

‘All of which are extremely contentious,’ Ögedei interjected.

‘... and possibly also under the ice-covered oceans of Jupiter’s Europa and Saturn’s Enceladus.’

‘All unsubstantiated,’ she added.

‘There is the Messenger Legend,’ Platonow said.

‘Belief in visitations from extraterrestrials and entities from other dimensions were a common enough type of mass delusion among the neo-ancients,’ Siemens said.

There was something about Siemens, Xanadu thought, that she could not quite put her finger on. She exuded an unspoken authority. Behind her calm demeanour, Xanadu could sense she was assessing them, their possible usefulness.

‘But the time spans involved ...’ Dolkar Ögedei said. ‘The probability of some extraterrestrial lifeform becoming a spacefaring civilisation, say, even during the last million years must be infinitesimally small. And how long can any civilisation last? Ten thousand years? A hundred thousand?’

‘The improbable happens,’ Platonow said.

‘Even the fastest ships to Mars used to take a month to get there,’ Siemens said.

‘The neo-ancients believed,’ Platonow said, ‘that it was possible to reach speeds approaching twenty per cent of the speed of light. The Kripal interstellar nano-robot probes—’

‘There’s no definitive proof that they were ever launched,’ Siemens said, cutting him short again. ‘This object – if it is not a natural phenomenon – could be something from the past. Something returning from some expedition to the Kuiper belt ... piloted by a boolean electro-intel, or even an electro-sentient.’

‘When will it be visible from the northern hemisphere, from here?’ Dolkar Ögedei asked. ‘From Archenhold?’

The Archenhold Observatory was situated on the top of an Alæskan mountain range.

‘It already is,’ Platonow said. ‘Since two weeks ago.’

‘I think it’s time for some schnapps,’ Mao-Te said.

In the crawler-taxi back to the centre of Polærisgradt, Xanadu and Platonow – Hoffmann did not accompany them – were largely silent.

‘What is that?’ Platonow asked.

They were on a stretch of seafront road, the smell of salt in the air.

‘What is what?’ Xanadu asked.

He indicated the sea. Hundreds of faint, flickering lights were floating on the obsidian black water. For a moment he had thought they were fireflies, but then remembered there were none at either of the poles.

‘It’s a Night of the Dead,’ she said.

He knew that the Impæriyans buried their dead at sea, but had no idea what a ‘Night of the Dead’ was.

‘They float little boats with lights on them out into the sea,’ she explained. ‘In remembrance. Different communities do it at different times of the year.’

SEVERAL WEEKS LATER

8

‘He will be here shortly.’ Theresa II was the youngest pontifex there had been for decades. She was unusually light-complexioned, a genetic heritage from some long-forgotten ancestor, with straw-blond hair, straight and cut short. Her thick-lensed, round spectacles gave her the appearance of wisdom and insight beyond her years. The orange scent she was wearing was subtle but noticeable. ‘At what point did they learn that this Object from the Stars had gone into an orbit round Mars?’

‘A week or so into the Biosphere Commission’s deliberations,’ Nuncio Hamlet Kemale informed her. He still felt queasy from the aero-liner journey from Polærisgradt.

She was seated on a cushion, cross-legged, dressed in an unadorned grey robe; and he on a stool, looking down at her. Etiquette decreed, in keeping with the spirit of the Holy Books, that the Servant of Servants was never to look down upon any man or woman, *even upon the least*. Audiences in the Palatium Apostolicum were one occasion on which the custom was almost invariably observed.

‘Which, I presume, fuelled all manner of speculations.’

The Palatium was a nondescript six-storey building; it hardly resembled a palace, but the designation was traditional. Its saving grace was the roof garden with its once common but now rare exotic plants, carefully tended to by the Holy Fool, Oktavian Abantu himself. The windows were open. Polærisgradt sounded oceanic, the low hum of the waves always in the background. But Roma Nova, with the adobe buildings and heavy tropical air, sounded like an echo chamber. Random

shouts and cries, and the intermittent calls of the monkeys and the seagulls, were audible over long distances. Unusually, today there was an almost coolish morning breeze blowing in from the estuary.

Kemale had seen three pontifices come and go: Mary XII, Magdalene XX, and Zephyrinus V. All three of them had been quite advanced in years when they had taken the vow to *serve all the children of Eve, who are brothers and sisters to one another in the flesh and in the spirit and to be loved*. His first audience with Theresa II had been a year earlier; and, as the custom demanded for first audiences, she had knelt before him and washed his feet in an unadorned enamelled dish, a formality which she had exercised tenderly. ‘They say you are a worldly-wise man?’ she had said to him. ‘*The wisdom of this world is foolishness in the eyes of God,*’ he had replied, quoting Corinthians half earnestly. She had replaced Mary XII’s tapestries with five fantastical paintings in some obscure late neo-ancient style: images of dark forests inhabited by semi-daemonic creatures and moonlit desert landscapes. And, Kemale had noticed, she had restocked the bookshelves according to her rather eclectic taste: early neo-ancient novels, travelogues, and many volumes on the physical sciences – which, on noticing his curiosity, she had described as her ‘Holy Books of Nature’. The sprinkling of theo-systemical works seemed almost an afterthought. She had also removed Mary XII’s gaudy devotional objects from what was now her private chapel, placing on the altar a simple wooden cross and a small Sphinx, carved from graphite, reputed to have once been housed in one of the museums of Roma Antika. In theory, the pontifex was little more than a figurehead, despite being selected by the Synod, its members being in turn elected by the general populace in a public vote and subsequently unanimously approved by the Kurators. But there had been many pontifices who had wielded great influence. And following the final abandonment of Roma Antika, there had even been a few who had aspired to absolutism, of which Jesus II – he could hardly

have called himself Jesus I – was the most notorious. Zephyrinus V had had significant influence with the Kurators. How much influence Theresa would eventually be shown to have was as yet undetermined.

‘Impæriyans are not prone to wild speculations,’ Kemale said.

‘Even when *a new star appears in the heavens*,’ Abantu added.

The Holy Fool was lounging on his divan – like, Kemale could not help thinking, a potentate of old – lazily inhaling therak from an ornate silver vaporiser. He was dressed in the blue and green chequered robe of his office and was wearing a strong floral scent which Kemale did not recognise. His ceremonial scourge, a seven-tailed whip with a little brass bell on the end of each thong, lay on the low side table. He had been appointed Holy Fool by the mendicant orders during the short but happy pontificate of Mary XII. His seemingly all-observant amber-brown eyes reminded Kemale of the eyes of one of those now long-extinct, black big cats. Domini Canem, the old wolfhound who had once belonged to Magdalene XX, was sleeping peacefully at the foot of the divan, which was all the dog ever did these days.

‘The Antarkian emissaries suggested,’ Kemale continued, ‘that humankind might be about to make its first contact with an extraterrestrial civilisation.’

‘History would not suggest that first contacts between the primitive and the advanced have joyful outcomes,’ Abantu said.

‘Let the Nuncio say what he has to say,’ Theresa said. ‘Please.’

It was reassuring to see that she could be authoritative when needed. Abantu could have made a satirical comment – he was after all the Holy Fool – but he merely inhaled another languorous breath of therak.

Kemale took another sip of tea. It was good to drink a brew made from fresh leaves again.

‘An intelligent species,’ Kemale said, ignoring the Holy Fool’s comment, ‘which has the ability to travel between the

star systems would, one could argue, would—'

'... be all sweetness and starlight?' Abantu said scathingly.

Kemale thought Theresa might reprimand him again but she let it pass.

'There were discussions,' Kemale continued. 'The government machinery of the Impæriyan Bureaucracy moves slowly.'

'Leisurely governance has served humankind well over the last few centuries,' Theresa said.

'Various vague proposals were discussed,' Kemale said.

'Did you give our blessing to any?' she asked.

'I said that I needed to consult. That taking a position was beyond my remit.'

He wondered what she was thinking.

'So what was decided?'

'To watch the heavens, to observe. Ziddhartha Platonow has since returned – or is on his way – to Antarkia. But Xanadu Lakshmi is still in Polærisgradt.'

'It could be a boolean machine of some kind,' she said.

'It could also be just a big stone,' Abantu added.

Domini Canem, as if suddenly roused by something that had been said, stretched out his forelegs, arched his back, yawned, got up, and wandered slowly towards the entrance door.

'I think our awaited guest has arrived,' Theresa said.

Astronomer Aggarwal Gustine had appeared in the doorway and was patting Domini Canem on the head. He took a biscuit from his khaki jerkin and allowed the wolfhound to snap it from out of the palm of his hand, and made his way towards them with the aid of his walking stick. He had a pronounced limp as the result of an accident that had occurred during his Sojourn in the Wilderness years ago. All Teilhardian novitiates spent two years harvesting manna. Officially a religious apprenticeship, it also conveniently and not uncoincidentally, enabled the Teilhardian Order to monopolise an activity that was crucial to their exercising considerable influence in the Sovranty's secular and religious affairs.

‘Nuncio,’ he said, nodding formally, to Kemale first, and then to Abantu. ‘Holy Fool.’

Kemale had spoken to him only once, five years previously, at one of Magdalene XX’s frequent and overcrowded banquets that took place in the central courtyard of the Old Zamsung Palace. The squat, round fortress-like stone edifice was one of the oldest *new* buildings in the city; and, Kemale thought, depressing to both look at or be in. The Kuria Chamber was on the top floor. It had been a few weeks after the most lethal heat wave in decades, which had relentlessly baked nearly the whole of the northern hemisphere south of Impæriya for two excruciatingly long, simmering months. Now as then, Kemale remembered, the Papal Astronomer had an air about him that conveyed what could be interpreted as either self-confidence or arrogance. It was hard to tell which.

‘Astronomer,’ Abantu and Kemale reciprocated in unison. Etiquette did not require that they rise.

Then he bowed to Theresa, in keeping with the dictum that *the first will be last*.

‘Your Holiness,’ Gustine said.

He seated himself on one of the stools, his damaged leg extended. Domini Canem made himself comfortable at his feet.

Kemale wondered why he had never had the injury seen to. It was hardly beyond the ability of the medical arts to rectify. But then, Teilhardians had idiosyncratic ideas about suffering and sacrifice; part of their *loving the world in its imperfection*, as they put it.

‘I presume you have read the Nuncio Hamlet Kemale’s report?’ Theresa said.

‘With great curiosity,’ he said.

‘And your opinion?’ she asked. ‘As regards its contents?’

It was not the first time Kemale had seen her address officials so abruptly, even those higher in rank than the Papal Astronomer. None seemed to take it amiss. Perhaps it was the honour of the intimacy it implied.

‘The probability that this phenomenon may be of intelligent

extraterrestrial origin is ...' Aggarwal Gustine began, pausing, searching for the right word, or pretending to. 'How shall I put it? ... Near-infinitely unlikely. But it's not impossible.'

'Nuncio Kemale enjoys our complete confidence,' Theresa said.

Kemale was puzzled for a moment. But then he realised that Aggarwal Gustine must possess some information he was not sure he should discuss in front of him.

'How much does the Nuncio know?' he asked.

'Nothing,' Abantu said.

Kemale, ever the diplomat, said nothing, merely smiled as if mildly amused.

Aggarwal Gustine turned to him.

'Twenty years ago—' he began.

'Those that seeth with their own eyes believeth,' Abantu said, interrupting him.

The quotation sounded genuine but Kemale sensed it was not.

'Can you safari tomorrow, Nuncio?' Gustine asked him.

'It could be arranged, Astronomer,' Kemale said.

'It would be for a couple of days,' the Teilhardian said. 'I can collect you mid-morning. It'll take us four hours to get there.'

'I have a few things to take care of,' Kemale said, thinking: the Teilhardians and their secrets ... 'But I can resolve those this afternoon.'

Gustine nodded.

'I'm sure you will find the excursion interesting,' Theresa said.

Kemale smiled awkwardly. Under normal circumstances, he would have been annoyed at being treated like ... like some semi-competent underling? But he sensed that whatever this might be about, it was not merely some game or papal petty politicking.

'I shall await with bated breath for what you think,' Theresa said as he made a parting bow to her, casting a cursory glance at Abantu as he did so. The expression on the Holy Fool's face was that of mild amusement.

Exiting the Palatium, Kemale made his way across the near-deserted, white flagstoned expanse of the Saint Peter and the Magdalene's Piazza. The glowing globe of the Afrikan sun was high in the sky. When he was halfway across, the bells at the top of the Saint Peter and the Magdalene's obelisk-shaped minaret began to ring out the call to prayer. The domed basilica, its frontage of marble pillars reminiscent of pre-Christian temples of the ancient Mediterranean civilisation, was not as large as the original Saint Peter's in Roma Antika, but large enough to hold twenty thousand celebrants. Two priestesses, in wide-brimmed sunhats, were walking up the steps to the titanic front doors. He heard the cranes first. Their bugling was unmistakable. He looked up and saw a flock of fifty or so of them, flying in bow formation, very high up, heading towards the north. They appeared every year at the end of the lesser monsoon, and flew off again a few months later; to where exactly, nobody knew.

‘Call me Gustine,’ the Teilhardian said to Kemale as he got into the dilapidated-looking Lemaître steamer and was fastening his safety harness. ‘I’m not one for all this formality. Or even Aggarwal if you feel so inclined.’

‘As long as you don’t address me as Nuncio,’ Kemale laughed, deciding on Gustine. Aggarwal felt just a bit too intimate.

As they drove south and away from Roma Nova, Kemale had hoped that the Teilhardian would tell him what the purpose of their journey was, but he didn’t, and Kemale did not press him. The Teilhardian did, however, tell him that they were going to the Lemaître Observatory; which led Kemale to suspect that they had discovered something new about the Object. But why, he wondered, all the theatrics and secrecy?

‘The optical telescope at the universitas,’ Gustine said, ‘is only used for instructional purposes. However, they have discovered – or most likely rediscovered – a few comets and asteroids.’

‘Science as archaeology?’

‘Except for radio astronomy perhaps. The sky is an endless and ever-changing electromagnetic cacophony.’

Kemale asked him where they had got all the equipment for Lemaître. It was the only radio observatory on the planet.

‘Kahari,’ Gustine said. ‘Used to be called Kalahari. Somewhere along the way, the *la* got dropped. It was a desert even in neo-ancient times. There was a large radio observatory there that was abandoned sometime during the Twilight, buried under the sands. It only rains there once a century. Bone dry sand is a great preservative. There’s no shortage of old maps of the region so it was relatively easy to locate it. Most of what we salvaged needed to be patched up and reconditioned, usually by

cannibalising equipment that was too damaged to do anything else with. A surprising amount of the boolean circuits were still functional. Getting everything up and running, and constructing a mechanical system to enable the parabolic dish antennae to track synchronously, took us the best part of a decade.'

The landscape they were driving through was typical of much of the Green Sahara: a carpet-like expanse of rice fields as far as the eye could see, the rice plants rippling in the breeze like seaweed under water. Rows of rotating multi-bladed wind machines on lattice towers were drawing irrigation water from the canals.

They passed the towering remains of a Pesochinsky Chimney; large numbers of them had been built in the tropics.

'I sometimes wonder what it was like,' Gustine said.

'What was what like?' Kemale asked. He had lost the thread of their conversation.

'The abandonment of the Kahari observatory. What the last scientist or technician to leave the place must have felt, shutting up everything, switching off the power, walking away from it all, not quite knowing what to do with the keys.'

'Must have happened countless times, all over the planet.'

'I wonder if they thought it was only a temporary interruption, another crisis in a chain of crises, a bump on the road, and that somehow everything would return to some sort of—'

'Normality?'

'Something like that.'

An hour later, they had left the green rice fields behind them and they were driving through a parched, scrubland landscape.

'Borderlands country,' Gustine told him. 'The rains here are fairly intermittent but it is relatively cool for six months of the year. The true Wilderness is two hundred kilometres further south.'

When, an hour later, they reached the sandy entrance track that led to the observatory, the sun was beginning to set, and the clouds on the western horizon were a blaze of colours over a distant purple-tinged mountain range. The land on both sides of

the track was black from the effects of a wildfire.

‘The grass burned away two months ago,’ Gustine informed him as they drove over the twenty-metre-wide firebreak that surrounded the compound, the wheels of the steamer struggling to get a grip on the loose stones. ‘It can go up in flames any time after halfway into the long arid season.’

Behind the compound fence, there were several rows of two-metre-diameter parabolic dish antennae, all of them facing in the same direction, at some invisible spot in the cloud-covered sky. It was more impressive than Kemale had expected. He estimated there must have been a hundred antennae.

The compound included a complex of adobe buildings.

The steamer pulled up in front of one of them.

‘This was my idea,’ Gustine said as he switched the steamer engine off.

‘I don’t understand,’ Kemale said. At times the Teilhardian had the habit of assuming one could read his mind.

‘To have you come here and see things for yourself. Though I was planning to give you some idea what to expect.’

‘Until Abantu spoke his words of wisdom.’

‘Quite.’

Whatever Gustine intended to show him or reveal to him, he would no doubt do so in his own good time. It was evident that the Teilhardian had not brought him here merely to give him a guided tour of the observatory.



The next day, after the anticipated tour of the observatory, and when Kemale had met the rest of the Teilhardians working there, Gustine brought him to his office, a cramped room that looked out onto the compound garden. The previous evening, during the communal meal, a small young woman with jet-black hair had told him they grew mainly plants to provide the supplements necessary to their non-animal-product diet, and that a rainwater-harvesting system supplied them with irrigation water to see them through both the dry seasons. Kemale had

been about to ask her what else they grew but he never got the opportunity. The Teilhardian Order was known for its expertise with entheogenic flora and fungi, some of which were used in the entheogenic sacrament, the *pharmakon athanasias*. They also produced a very popular range of cactus-based fragrances.

‘I hope you found our little tour informative,’ Gustine said.

The Teilhardian’s desk was bare except for a typewriter and a large-screen microfilm viewer. The rolls of graph-plotter printer paper they used to record the radio signals were photographed, and after the information was transferred to microfilm, were then erased and reused.

‘If this ... phenomenon ... that the Antarkians have discovered was transmitting a radio signal, would you be able to pick it up?’ Kemale asked him.

‘Depends.’

‘All the coordinates are in my report,’ Kemale said.

‘It’s not that easy to get a lock on a small moving target, and it’s a long way away. The sky is noisy. And in the extremely unlikely event that it might be transmitting something, we don’t know at what frequency, or when ... It might not be using radio frequencies at all. Our technology looks sophisticated but, in reality, it is early neo-ancient level. Analogue. Except for the few bits of functioning boolean circuitry we managed to salvage. All very rudimentary in comparison to what the late neo-ancients had. But we are trying to see if we can detect anything.’

‘What about attempting to send it a message?’ Kemale asked.

‘And let them know we are here?’

‘Something like that.’

‘I cannot imagine an intelligence that can wander from star to star not knowing that we exist.’

‘But broadcasting a signal to it would, even if it were not understood ...’

‘... indicate to it that we are aware of its presence?’

‘Yes,’ Kemale said, adding after a moment, ‘an extraterrestrial intelligence would be the ultimate Other.’

‘With theo-systemical implications.’

‘Which, serendipitously, is not my department.’

Teilhardian theo-systemics perceived the cosmos as evolving, lured by its inherent essence, via ever greater complexity, towards a final Omega Point, a cosmological consciousness of unimaginable complexity. Eventually, perfecting and completing itself, it would reach back through the past, to the very beginning, subsuming into itself all that had ever occurred since the original primeval explosion: the Resurrection of Time.

‘But you did not bring me here to discuss theo-systemics,’ Kemale said.

Gustine inhaled a breath of therak.

‘Twenty years ago,’ he said, ‘I was in the Wilderness harvesting manna—’

‘During your Sojourn?’

‘Yes. The Wilderness ... it’s a profoundly isolating experience. Life is reduced to the essentials. One sheds any delusions that one can ultimately have any real dominion over the non-human. The dangers are real but novitiates are well trained. This mishap’ – he indicated his damaged leg – ‘was the result of circumstances nobody could have foreseen, and my own recklessness.’

Then he described how he had been collecting manna-plant ovoids, safairing alone for days on end. Kemale tried to visualise the scene: the heat, the dust, the sand, endless days spent driving in the crawler, the only signs of life the odd bird high in the cloud-covered sky, cacti, and clumps of desiccated vegetation. He had never actually seen a manna plant, though he had an idea of what they looked like from photographs and drawings. Neither had he ever ventured into the Wilderness himself. Few did. However, he had seen the brown-yellow expanse of it from aero-liners many times. He always thought of it not so much as a definite place somewhere, but more a blank space on the map, an emptiness that would someday, in some distant future, finally engulf the three civilisations. When the Teilhardian described his initial discovery of the entrance to

a subterranean cavern, Kemale was not overly surprised. There were so many ruins that lay waiting to be explored, though it was unlikely that no more than a small fraction of them ever would be. Then Gustine described finding the spacecraft.

‘They looked,’ he said, ‘as if they had only just emerged from the production line of some neo-ancient robotised factory.’

Kemale tried to imagine how the Teilhardian must have felt. A sense of awe, surely. But perhaps also a vague sadness with regard to what might have been?

‘When the neo-ancients,’ Gustine continued, ‘founded the first colonies on Mars – in the Vinogradov, Schiaparelli and Herschel craters; such evocative names, don’t you think? – and began to terraform the planet, they must have believed there were on the cusp of becoming *Homo cosmicus*.’

Kemale had seen neo-ancient black-and-white photographs of the Martian landscape and the habitation domes of the crater colonies. And even a few colour images showing the planet’s orange-red landscapes, grey-pink skies, and mountain ranges enveloped in carbon dioxide ice-crystal clouds.

‘I imagine Mars as being similar to the Wilderness,’ Gustine went on, ‘but cold, very cold. It’s minus 130 °C at the poles during the Martian winter, though daytime temperatures can occasionally reach 20 °C in the deeper craters. The atmosphere is ninety-five per cent carbon dioxide with only a trace of oxygen, and only a fraction of the density of Earth’s. Thinner than the air in the highest Himalayas. Entirely unbreathable. Or at least it was ... The terraforming was to change all that.’

There were some who believed that the crater colonies had not been abandoned. It was not entirely impossible, though more than extremely unlikely, that some colonists had survived, their descendants eking out a grim subsistence on the cold and barren world, unable even to construct something as relatively unsophisticated as a radio transmitter.

‘We have observed Mars for years on every conceivable bandwidth and frequency ...’ Gustine said.

‘And?’ Kemale said.

‘Deafening silence.’

‘And no sign of terraformation.’

‘The ice sheets at the poles are slightly smaller in area than they used to be in late neo-ancient times but there could be several natural reasons for that. Mars does have weather. These ice sheets consist mainly of water ice, with a layer of frozen carbon dioxide on top. The water ice would not begin to melt unless temperatures had risen above zero. Archenhold has attempted spectrum analyses of atmosphere several times but never got any definitive results.’

Gustine lifted himself out of his chair and made his way over to one of the wooden filing cabinets – without the aid of his stick, his limp was even more pronounced. He extracted a thick cardboard folder, returned to his desk and sat down again.

‘The crawler overturned while I was driving over rough ground in a reckless rush to return with the news of the discovery,’ he said. ‘It was a miracle that I was able to right it with the winch.’

For a moment Kemale was at a loss.

‘My leg,’ Gustine explained.

He pushed the folder across the desk to Kemale. It contained a sheaf of large black-and-white photographs.

‘The only light we had was from our electric torches,’ he said.

The photographs – Kemale had seen images of neo-ancient space shuttlecraft before; they were small, sleek craft, with ellipse-shaped portholes – had an otherworldly quality to them. Human figures were milling around some of the craft, which gave one a sense of their size. He wondered if one of the figures was Gustine in his more youthful days, but they all had their backs to the photographer. Perhaps he had been the photographer. The subterranean cavern looked as if it was both human-made and a natural formation. The lettering, or characters, on the hulls of the craft seemed to be that of some neo-ancient East Urasian script.

‘Korean,’ Gustine informed him.

A few of the photographs were of the interior of one of the

craft, showing banks of instruments wrapped in some transparent fabric-like material.

‘Plastic?’

‘Yes.’

‘How many were there?’

‘Four. They were in a miraculous state of preservation. Moistureless air. A near-airtight environment. Mummified Egyptian corpses survived for millennia. But it’s mainly the genius of neo-ancient engineering. Nano-carbonite titanium. Nano-ceramics. Nano-silicon hybridites. Materials we cannot even dream of manufacturing.’

The last photograph showed a human figure posing beside an open shuttlecraft hatch, waving at the camera, a woman perhaps from her demeanour, though it was impossible to be sure.

‘Sullivan-Orlowska magneto-engines,’ Gustine continued. ‘Superconduction technology. They are the type of craft that were used to travel between the orbital stations orbiting the moon and the other planets. From Copernicus Delta to the lunar surface, or from Brahmagupta Gamma to the Martian surface. But they were not powerful enough to escape Earth’s gravity. To get them into an Earth orbit, large rocket ships were needed. What you see in these photographs are command modules. Neo-ancient spacefaring technology was modular. A command module is like—’

‘The bridge of an aero-liner?’

‘Except it can also detach and fly independently. Let me show you ...’

Gustine drew a rough sketch of a long rocket-ship cylinder on a large sheet of engineers’ grid paper.

‘There are four main types of rocket-ship modules,’ he explained, dividing the crude rocket-ship cylinder he had drawn into four sections, and labelling them. ‘Command module. Passenger module. Cargo module. Propulsion module.’

He had drawn small fin-like protuberances along the length of the space vehicle.

‘What are those?’ Kemale asked. ‘Wings of some kind?’

‘Subsidiary Sullivan-Orlowska magneto-engines. For course corrections and fine manoeuvring. Wings make no sense on a spacecraft. Space is a vacuum.’

Which of course he had known, Kemale thought. He must be giving the impression he was a scientific illiterate.

‘As I said,’ Gustine continued, ‘command modules were often referred to as shuttlecraft or shuttles. Standard passenger modules’ – he indicated the section of the cylinder behind the command module – ‘had living space for four to eight cosmonauts, depending on the length of the journey. Half the space is taken up by life support systems. They were rather cramped. A lot of cosmonauts suffered from cosmo-neurasthenia.’

Kemale gave him a quizzical look.

‘Claustrophobia induced by being incarcerated in space vehicles – and in habitation domes, on the moon, on Mars. for months, years on end. Coupled with agoraphobia induced by the disorientating effects of being in space.’

‘Sounds worse than air sickness.’

‘Cargo modules were just basically cylindrical cargo holds. How many passenger and cargo modules a rocket ship had depended on the specific requirements of a journey.’

‘Like a train of monorail carriages?’ Kemale suggested.

‘Precisely. With the propulsion module’s magneto-engine pushing it all, with the locomotive at the rear. Quite elegant, but spacecraft have always been modular. In the very early days, during the first space flights, the modules were used only once. They simply jettisoned them after they had served their purpose. The first space flights also needed ground crews of hundreds. But these craft could be piloted by a single cosmonaut or even by their onboard boolean machines.’

‘And the energy source for the magneto-engines?’

‘Solar harvesters in sun-facing synchronous orbits – that means always facing the sun – around Earth, the moon and Mars, and even around the gas giants. The electricity generated was stored in Ming accumulators.’

‘Do you think the Mars orbiting station, Brahmagupta Gamma, still exists?’ Kemale asked him.

‘Possibly. However, there is quite a bit of orbital debris around Mars from the Phobos Fragmentation.’

‘Which had something to do with generating an artificial magnetic field around Mars?’

‘Yes. Mars, unlike Earth, has not had a magnetic field for several billion years. It has no equivalent to the Van Allen radiation belts and is fully exposed to the solar wind and cosmic radiation. The solar wind ripped away the bulk of its atmosphere. Phobos was used to create a ring of charged particles, a plasma torus, to generate a planetary magnetic field to protect the colonists against solar and ionising radiation as part of the terraformation plan.’

‘And the Phobos Fragmentation?’

‘Something went wrong and chunks of Phobos broke off. One large piece crashed into the planet. The impact crater is large enough to see with the universitas telescope. It’s also possible that Brahmagupta Gamma was hit by debris from the explosion. There is some material in the archives that suggest that the plasma torus remained partially intact and kept producing a magnetic field, not a strong one, but one strong enough to make a difference.’

Kemale unexpectedly felt a pang of ... guilty longing? ... for the grand, adventurous, and tragic endeavour that the cosmonautic epoch had also been. But in reality, it had been a ruthlessly competitive affair between all kinds of powerful commercial corporations and political entities, much of which had been shrouded in secrecy at the time. The relevant archives are awash with propaganda and deliberate disinformation. But the nature of the Mars terraformation venture had compelled degrees of begrudging cooperation. But what a sense of wonderment the cosmonauts, and the cybionoids – those half-human, half-cyborg beings — must have felt as they ventured out to the moons of Jupiter and Saturn, and beyond!

‘The discovery of these shuttlecraft was never registered with

the Antiquities Bureau?’ he said.

‘No. Outside the Teilhardian Order, there are only a few people who know of it.’

Kemale said nothing. Was there some link between the discovery of these ancient spacecraft and the Object? he wondered. But how could there be? He was tempted to ask why but he had no doubt he would eventually be told if there was.

‘Indirectly,’ Gustine said, ‘or rather directly, I suppose, discovering these craft led to the construction of this observatory. But that is enough for now. Tomorrow we continue our safari.’

‘Where to?’

‘East, and then further south.’

They were in Gustine's dilapidated steamer again, this time on an obviously little-used but still drivable neo-ancient, concrete-slab highway. Kemale wondered vaguely where it had once led. To some once important metropolis, now forgotten? Leafless, desiccated vegetation was growing, tenaciously persisting, in the gaps between the slabs and the cracks in the concrete.

'Copernicus Delta is still transmitting,' Gustine said after they had driven in silence for a while.

Kemale remembered a three-dimensional phantomatic simulation he had once experienced which included images of the lunar orbiting station. The intricate structure, composed of mainly repurposed space-vehicle modules attached to a slowly rotating toroid connected to a central sphere by six cylindrical structures resembling the spokes of a crawler wheel, possessed that beauty that semi-symmetrical objects sometimes have. The ageing edifice, floating against the backdrop of a large crescent moon, had been painted in a kaleidoscopic range of colours: faded chrome yellow, bright red and rusty brown, patches of sky blue and bright green; the vividness of which, he supposed, must have faded over the centuries. The complete station had taken decades to assemble. One got some idea of just how colossal it was – the diameter of the toroid alone was perhaps a kilometre – from its myriad rows of miniature portholes and docking ports. But, after he had emerged, the sense of awe he had experienced had been dampened by what he knew of the reality. The cost of the capitalocratic reach for the stars had been countless human lives and the extinction of countless other species. Nevertheless, he could not help wondering what the last cosmonauts, both human and cybionoid – like the last technicians who had left the Kahari observatory – had felt as the journeys to Mars had ceased and the lunar colonies had been

abandoned, and as they had boarded Copernicus Delta's final Earthbound shuttlecraft. It had been one of his more memorable phantomatic experiences. Most immersions were fleeting, and ultimately unsatisfactory, glimpses into long-dead worlds created by long-dead human and machinal imaginations. Yet, unsatisfactory though most phantomatic experiences might be, when one had acquired a fascination for them, the yearning to repeat them never quite went away. Some phan-chips immersed one in neo-ancient landscapes of stunning beauty and brought one face to face with long-extinct animals, birds and fishes, and vegetation, or unimaginable technical wonders. Some caused visions possessing a strange and abstract beauty. Others conjured up agonising erotic paradises. Yet others immersed one in worlds that were utterly incomprehensible; or just induced nausea. A few revealed horrors, both imagined or reenacted, so vivid that one could never unsee, unhear or unsmell them. And since most phan-chip can only be used twice, at least half the time an immerser never knew what to expect. Damaged and psycho-toxic phan-chips were rare, but Yrælo Lee, or the Raykjavikan as she was more often called, was an invariably reliable source.

'We first detected signals six years ago,' Gustine said.

Kemale could tell by the Teilhardian's tone of voice that he was about to be graced with more revelations.

'The station circles the moon every ten hours or so, on an equatorial orbit. Which means that during any given month it can be seen – radio astronomically speaking – from Earth, most of the time. As it transits across the moon, when it reaches the halfway point, it transmits a signal package.'

'And on moonless nights?'

'There's always a moon. It's just that we don't see it. But a quarter of the time, it's more or less directly between us and the sun. Which is a problem: it's not so easy to detect the signal against the background of solar radio activity.'

Kemale tried to visualise Earth spinning on its axis and the moon orbiting around it – every twenty-seven-and-a-bit days –

and the relative position of the sun.

A sun-bleached concrete bridge, spanning the highway, appeared up ahead. Its monolithic pillars were still intact but sections of it were visibly crumbling.

‘It took us a long time to decipher it,’ Gustine continued as they drove under the gigantic structure. ‘Two or so years, in fact.’

‘And what does the signal packet contain?’ Kemale asked.

For a moment he imagined a pre-recorded disembodied voice repeating itself endlessly, night after night, in English or Mandarin or one of the other neo-ancient lingua francas saying something mundane, or technical, that sounded profound because it was coming from outer space, from the stars.

‘An ongoing report on the condition of the station’s systems. Temperatures. Pressure readings. Updates on automatic maintenance systems. Mechanical integrity measurements. Solar harvester functioning. Ming accumulators’ performance. The station is in what one could call a state of mechanical-electro hibernation. But it powers itself up twice a year to make sure its systems are functioning and to activate its location-maintaining Sullivan-Orlowska magneto-engines. Some components, some systems have inevitably failed – it *is* centuries old – but the life support systems are still capable of being powered up again in seventy per cent of the habitation modules. So, in principle, it’s still more or less a functional lunar orbiting station.’

‘And who knows of this?’ Kemale asked, reminded of a line from a poem he’d once read about a crewless ghostship forever sailing the seven seas.

‘A select few. More or less the same people who know about the shuttles.’

They drove past the ruins of a neo-ancient settlement, its access road overrun by dried up vegetation. Most of the buildings were little more than mounds of rubble, but the concrete block walls of some were still partly standing. The only green plants were cacti.

‘Does it rain much here?’ Kemale asked.

‘Not much. But regularly enough. And when it does, the vegetation comes to life. The lantana in flower is a sight to behold.’

Half an hour later, they turned off the highway onto a dusty, barely recognisable track heading in a southerly direction. There had been no signpost. The last one Kemale remembered seeing was a little after they had left the observatory.

‘It was also constructed to last,’ Gustine said. They were talking about Copernicus Delta again. ‘The fact that the moon is not enveloped in a cloud of orbital debris makes all the difference.’

The two large Earth orbiting stations, the Tsiolkovsky and the Armstrong had been destroyed over a century and a half ago, within only a decade of each other, hit by orbital debris most likely, in what were described in eyewitness accounts as silent, firework-like, sky-filling conflagrations. Earth was enveloped in a cloud of millions of the pebble-sized remains of satellites and spacecraft of various types, the result of several hundred years of space vehicles disintegrating and collisions. Most of the debris was orbiting at several times the speed of sound. During the cosmonautic epoch, it had been possible to keep it at manageable levels, but that had been a long time ago. A lot of it was gradually burning up in the stratosphere, producing occasional spectacular meteor displays on cloudless nights. Some of the larger, intact-but-defunct satellites were still occasionally seen transiting across the night sky.

‘Some must have never given up the hope that someday humankind would venture out into the solar system again,’ Gustine continued as he deftly manoeuvred the steamer over the uneven surface of the barely detectable track. ‘Which is also probably the reason why somebody hid the shuttlecraft we found. Who knows what else is hidden away, here, and on the lunar surface or below it, or on Mars, even?’

In the distance, barely visible in the heat haze, Kemale could see a range of hills, towards which they seemed to be heading.



‘We’re nearly there now,’ Gustine said.

They were driving down a long and unusually flat sandy valley, churning up a dust cloud, visible in the rearview mirrors. The western horizon was again a blaze of sunset colours. They passed a large solar harvester field off to the left. The hyper-efficient, silver-grey collectors were shimmering in the dusk sunlight, silently absorbing the last of the day’s light and heat. It was difficult to make out how large the array was, but it was not small. Finally, at the far end of the valley, they reached their destination: a concrete building, two storeys high, that at first glance looked like just another neo-ancient ruin.

‘It was originally a bunker, a bomb shelter,’ Gustine explained as he manoeuvred the steamer over the sandy terrain. ‘Three-quarters of it is underground. Remote, and from the distance it looks like just another vaguely inexplicable relic from the past. Ideal for our purposes.’

Kemale let the conspiratorial comment pass.

Gustine brought the steamer to a halt and switched the engine off. There was no sign of a fence or anything else that might give the impression that the building was in use.

‘They’ll open up for us shortly,’ he said.

A minute or so later, an opening began to appear in the windowless wall in front of them: a large sliding door, distinguishable from the concrete wall only when it slowly revealed an entrance into an impenetrably dark interior.

‘Well camouflaged, isn’t it,’ Gustine said.

A figure appeared in the entrance: a tall, slim young woman in green coveralls.

‘Meet Sébastienne,’ Gustine said, as he restarted the steamer engine. ‘I doubt there is anyone else on the planet who knows more about neo-ancient boolean systems. She deciphered the signals from Copernicus Delta.’ Adding, as he drove towards the entrance and into the dark interior, ‘I’ll be officiating a mass in the morning. A mass ordinary.’



It was the Teilhardian custom, weather and circumstances permitting, to celebrate mass in *the basilica of the cosmos*, in the open air, under God's sky. The preferred time was at sunrise; though lunar masses were also celebrated, usually at night, but occasionally during daylight hours if the moon was visible. The rite, except for the sermon, was worked in ancient Greek. When the Order had been founded, neo-ancient Italian had been used, but ancient Greek – the Teilhardians were somewhat enamoured of things Platonic – had gradually established itself as the *lingua sacra* of choice for their rites. However, some of the chants – Afrikan ecclesiastical music never had instrumental accompaniment, and was not danced to – were sung in a variety of dead languages, including ancient Latin. Most masses were masses ordinary. The mass *extasia*, which involved the partaking of the entheogenic *pharmakon athanasias*, was celebrated only at the solstices and the equinoxes.

The sky was brightening when Kemale got to the secluded rocky hollow, out of sight of the neo-ancient bunker. An altar had been set up on a flat-surfaced rock that seemed naturally designed for the purpose. He had always found the hour before dawn an uncanny time; as if the opaque veil between the phenomena of the world and what lay behind was momentarily fragile. Not that it was a time at which he was accustomed to rise.

There were about ten attendees, some of whom he had met at the communal meal the previous evening. They were all dressed in the distinctive Teilhardian red habit worn on formal occasions.

Gustine worked the rite with a degree of the theatrical that somewhat surprised Kemale. Of all the orders, the Teilhardians were known for their *gravitas* in matters psycho-mystical, even the most worldly among them. His sermon was relatively short, and orthodox except for the unexpected literalism of how those who witnessed the Resurrection went to their deaths, one after

the other, proclaiming the truth of it.

Belief, for Kemale, was less a tentative and indefinable intuition that what lay behind the phenomena of the world possessed some sort of divine nature, but, rather, the deliberate, and considered nurturing of the will to have faith in those one loved and was loved by; a quiet strengthening of the belief in one's ability to do the good, as well as, he supposed, in an ultimate ineffable meaning. It was not something to be endlessly analysed. The cosmos was a mystery, something which no human science could ever fully comprehend. Occasionally contours of the mystery might be imperfectly glimpsed in psycho-mystic visions, *as through a glass, darkly*; but visions were easily erroneously interpreted, often with calamitous psychological and sociopolitical consequences. Any particular religion was, at most, a confused attempt to describe that mystery – the Divine Mystery – in the language of symbol and myth, and in music. Cosmological Christianity was no exception; though it had long been accepted that its origins were as much mythic as in historical events. Some religions were considerably more confused than others. There had even been a neo-ancient cult based on the belief that the cosmos was a near-infinitely complex hyper-phantomatic world, or universe rather. Few religions contained anything that could be taken literally, their absurdities mirroring the absurdities of the cosmos, and its horrors. And there had been many religions that had added to those horrors.

Several times during the rite, he glanced at Sébastienne. She had eaten with them the previous evening but he had only spoken with her briefly. She seemed to be deep in meditation.



Sébastien's laboratory was situated in one of the bunkers' underground chambers.

'There were essentially three categories of boolean machines,' she told them. 'Electronic computers. Electro-intels. And electro-sentients.'

Kemale had no idea what the purpose of most of the electrical equipment might be. There were several monitor screens, similar to microreader screens, but with black-and-white displays and electric keyboards plugged into them, presumably for typing instructions. Most of the equipment was obviously salvage.

‘Boolean technology is not a field of knowledge that I am overly familiar with,’ Kemale said, though he knew more than most.

‘Few are,’ Gustine said.

‘The first boolean machines were electronic computers,’ she continued. ‘Initially, they were pre-nano, basic work donkeys. As were the later more advanced nano-devices. Electro-intels, which followed, were exponentially more powerful. The earliest ones were nano, the later ones were quantum. They were what one could call specialised synthetic intelligences. All the later networks ran on them. The neo-ancients did not so much merely use boolean machines as were embedded – psychologically, but also to a large extent physically – in a boolean technosphere, a planet-encompassing network of ground-based machines and tens of thousands of electro-intel satellites.’

‘And electro-sentients?’ Kemale asked.

‘They were generalised synthetic intelligences and, as the name implies, were thought by many to be conscious. The neo-ancients believed that consciousness could emerge from sufficiently complexly organised matter. Though, of course, they could never be sure. Consciousness, after all, can only be determined subjectively, experienced. It’s not possible to tell the difference between actual consciousness and simulated consciousness. Hence the opposition by some, a minority, to the destruction of electro-sentients during the Rampage. These here’ – she indicated stacks of electronic equipment connected to the flickering black-and-white screens – ‘are pre-nano electronic computers. But I also have some nano sub-units that I am trying to interface them with, though, so far, without any

success.'

He noticed what looked like boolean data storage devices on one of the shelves at the far end of the room. But there was no sign of anything that looked phantomatic-related; not that he really expected there would be. In any case, it would hardly be on open display.

'The Antiquities Bureau knows nothing of any of this,' Gustine said.

All boolean equipment was Protocol 3. However, there was so much of it scattered all over the Wilderness that the consensus was that only items that could be rendered functional were to be reported to the Antiquities Bureau. But what they were showing Kemale hardly fell into that category.

'I see,' he said.

As to why the Antiquities Bureau had not been informed, Gustine did not tell him.

'I hope you found that interesting,' Gustine said when they were above ground again.

'Most,' Kemale said.

'There is however something else I want to show you. Something more ... tangible.'

'Those that seeth with their own eyes ...' Kemale said, again not enquiring any further.

'Something like that. Meet me in the vehicle hanger at twenty o'clock.'



The tropical darkness had already descended as Kemale made his way to the vehicle hanger. Gustine and Sébastienne were waiting for him.

'It's only a short distance away,' Gustine said. 'Why don't you go with Sébastienne? It'll give you an opportunity to converse.'

It was a cloudless night, the first for several weeks. The stars were visible. And there was a welcome mild chill in the air.

Gustine led in the Lemaître steamer, and Kemale and

Sébastienne followed in a crawler.

Kemale had been left to his own devices since being shown Sébastienne's boolean machines. He suspected they were attempting to access the boolean data storage devices he had seen. Afterwards, he'd gone walkabouting in the vicinity of the bunker, absent-mindedly trying to imagine the world in which it had, centuries earlier, been constructed. During the communal lunch, he'd attempted, diplomatically he hoped, to glean some more information regarding what went on at this Teilhardian borderlands outpost, but had learned nothing. Later, to escape the heat, he'd retired to the spartan room he'd been allocated, dealt with some correspondence; and read another chapter of Liam Dianovitch's monograph on neo-ancient fantasy literature, *Dreams and Nightmares of Futures Past*.

'It's uncannily flat,' he said, to make conversation more than anything else, referring to the valley floor.

Gustine's steamer, even though he was not driving fast, was generating a trail of dust that glowed cadmium yellow in their headlamps. Sébastienne had to keep about fifty metres behind him to avoid being engulfed by it.

'It was an aerodrome,' she said. 'An airfield for heavier-than-air machines. The original concrete runways are only a couple of centimetres below the sand.'

'*Look on my Works, ye Mighty, and despair!*' he said. The words just came to him.

She gave no sign of being familiar with the phrase.

'It's a line from an early neo-ancient poem,' he explained.

She was silent for a moment.

'Trees wither and die,' she said eventually.

'But the forest continues,' he suggested. 'All evolves towards complexity. The lure of becoming. Towards the Omega Point'

'Or,' she said, 'the Omega Point is moving infinitely slowly towards us. Some find consolation in thinking about it like that. Except that our world is not becoming more complex.'

The note of scepticism in her voice, which surprised him, led him to suspect she was not quite the true believer.

‘So it would seem,’ he said.

‘And if the Omega Point subsumes all time,’ she added, ‘perhaps our time has already been subsumed into it ... and time has already been resurrected.’

He estimated they were halfway down the valley but it was impossible to know with any certainty in the darkness.

Ten minutes later, Gustine veered suddenly to the right. Sébastienne followed him. They seemed to be heading towards what appeared to be a floodlit concrete building, perhaps another bunker, situated a short distance up the side of the valley. Kemale had not noticed it on their drive the previous day.

He caught a glimpse of something to the left of them in the crawler headlamps: a metallic-looking, half-cube-shaped object, about a metre high and half a metre wide, with a squat glass dome on top of it.

‘What was that?’ he asked her.

‘A beacon light,’ she said.

A few metres later they passed another one, and then another. In the distance, when the headlamps shone momentarily off to the left, Kemale noticed several more.

‘It’s quite a spectacle when they’re all switched on,’ she said, but did not offer an explanation.

They drove along what was now obviously a line of beacon lights, keeping their distance from Gustine, whose steamer was still churning up a cloud of cadmium yellow dust. Kemale counted maybe forty or fifty beacons. But then he saw that there were four lines of them, marking out the perimeter of a rectangular area, as one would a dirigible airfield. It didn’t make sense.

Gustine turned left and drove along the line of beacon lights that made up the far side of the rectangle. When he had reached halfway, he came to a stop beside a medium-sized array of solar harvesters, presumably the power source for the beacons. Another crawler, towing a large, wide flatbed trailer, was slowly making its way from the floodlit building towards them.

There was a crane, a lifting device, attached to the trailer. Sébastienne drove towards where Gustine had parked his steamer – he had already alighted and was waiting for them – and drew up alongside. She switched off the crawler engine and the headlamps. The crawler with the trailer had also come to a halt fifty metres away and had also switched off its headlamps.

Kemal noticed that the floodlights illuminating the bunker had also been switched off. A thin crescent moon was rising, casting a silvery light over the flat valley floor and the surrounding hills. The Milky Way stretched from horizon to horizon. They alighted from the crawler.

‘I sometimes come out here on starry nights,’ Sébastienne said. ‘And just look. Somebody once said all philosophy starts by gazing up into the vastness of the night sky.’

‘To tell the truth,’ Kemal said. ‘I find the vastness of it all somewhat too overwhelming for my modest mind. Countless cosmi within countless black holes ... I prefer not to think about it.’

Then, suddenly, there was a sharp buzzing sound and a series of rapid metallic clicks; and the sky became a blaze of phosphorous-white light. The beacon lights had been switched on.

Kemal took out his vaporiser and sat down on a flat-topped rock to wait for whatever was about to happen.

‘A few minutes more yet,’ he heard Gustine say to Sébastienne.

‘A perfect sky for it,’ Kemal heard her reply.

The vertical beams of phosphorous-white light were shining up into the darkness. As Kemal’s eyes adjusted to the glare, he scanned the sky for a moving light that would indicate an aeroliner or dirigible coming in to make landfall. But he couldn’t see anything. Most of the stars had been blotted out by the glare of the beacon lights.

‘It’s coming in,’ Gustine said a few moments later.

Kemal looked at the Teilhardian and then skywards. The moving light was as bright as Jupiter or Venus at their brightest.

It was electric blue, an unusual colour for a dirigible light, which were usually red or green or white. And, though it seemed to be moving slowly, it was moving faster than an incoming dirigible normally would.

‘And precisely on time,’ Gustine said, handing Kemale his monocular.

Viewed through the monocular, the light became a pulsating electric-blue blur moving slowly against the background of the lit-up sky. He focused the monocular, expecting to make out the general shape of a dirigible. But all he could see was the pulsating electric-blue light. It did not appear to be coming towards them, but following a trajectory that would pass over them.

He returned the monocular to Gustine.

‘It’s nearly in position now,’ Gustine said when it was more or less directly above them.

Then the object stopped moving, stopped dead, and hovered in the sky. Kemale had never seen a dirigible manoeuvre quite like that. Gradually it began to get brighter ... and, he realised, it was now descending vertically towards them. It grew yet brighter. Then – it was impossible to gauge its height – it hovered again in mid-air, making a barely audible hissing sound, and the electric-blue light dimmed, revealing its shape. It was one of the shuttlecraft Gustine had shown him photographs of, and was descending the way a rocket ship coming in to land would. The electric blue was the glow of its Sullivan-Orlowska magneto-engine. When it was perhaps a hundred metres above them – it was clearly visible now – the glow from the main engine shut down and the craft flipped over into a horizontal position, and its five subsidiary magneto-engines lit up.

‘Those that seeth with their own eyes ...’ Gustine said.

‘... believeth,’ Kemale said, unable to think of anything else to say.

They had somehow managed to learn how to fly the shuttlecraft!

A sleigh-like structure extended itself beneath the descending vehicle, and a few seconds later it landed on the valley floor, churning up a cloud of blue-tinged dust as it touched down. The subsidiary magneto-engines switched off, and the dust settled, revealing the shuttle's sleek metallic hull in the moonlight. A dim light was coming from its ellipse-shaped portholes.

The crawler with the flatbed trailer started up and began to make its way slowly towards the spacecraft.

'How—?' Kemale began to ask.

'It came with an operating manual,' Gustine said.

For a moment Kemale thought he was being literal.

'In a manner of speaking,' Sébastienne explained. 'It was a trifle more involved than that. But it was relatively straightforward enough when we gained access to its programmes. Think of them as flying boolean machines. Most of the time, all a pilot has to do is tell them what to do. More or less.'

'Electro-intels?' Kemale said.

'Non-quantum but nano,' she said. 'Hermetically sealed. Impervious to physical, electronic or radiological interference. Built to last for millennia. Essentially, all a pilot needs to do is learn to communicate with them. But that is not a skill to be underestimated.'

The crawler with the lifting device had drawn up beside the shuttlecraft and was carefully lifting it and positioning it onto the flatbed trailer.

'The intels won't let you fly the vehicle until they are sure you can,' Gustine added. 'And, like most late neo-ancient machines, they can also be programmed to pilot themselves.'

'They have a flight simulator function,' Sébastienne added. 'It teaches you how to fly it. Pretty standard for most sophisticated aircraft of the time.'

Two figures were now securing the shuttlecraft to the flatbed trailer.

'But what if something goes wrong?' he asked. 'Any machine can malfunction. Even electro-intels.'

‘Nothing is without risk,’ Sébastienne said.

‘And the power supply?’

‘From that large solar harvester field you saw on our drive in yesterday,’ Gustine said.

When the shuttlecraft was strapped securely onto the flatbed trailer, one of the figures made a hand signal to its invisible pilot. The portholes darkened and a hatch on the side opened. A grey-clad figure climbed out and began to walk towards them. Like a being from another world, Kemale could not help thinking, or from another time.



‘Many of the dissenters are in positions of some influence within the Gildija,’ Kemale said. ‘They have access to Protocol 3 cosmonautical technology, viable Protocol 3 technology. Of course, officially, the Antiquities Bureau neutralised or destroyed everything that came into their possession ... but, let us say, procedures are not always strictly followed to the letter.’

Her Holiness, as usual, was sitting cross-legged on her cushion. Kemale, on a stool, was looking down at her. But today she was wearing a dark brown robe, reminiscent of those worn by the monastic orders of the early Church. Abantu was stretched out on his divan, leisurely inhaling therak, with Domini Canem dozing on the floor in front of him.

‘And you think that some of these dissidents might be open to persuasion?’ Theresa said.

‘Perhaps,’ Kemale said. ‘They believe that the old ways need reformation, that Impæriya needs to change.’

The rain was still falling, rattling relentlessly on the roof. Gustine had driven him to Omrushak – which, he had said meant ‘where the lions sleep’ in some extinct neo-ancient language – and from there he had taken the monorail. When he reached Roma Nova, the dusk sky had been teeming with bats. There had been no sign of the rain which was to begin during the early hours of the morning, announcing itself with sky-cracking bolts of lightning. Now the city was awash with water.

Roma Nova's drainage system had long been in need of renovation. But the coolness was welcome following the dusty heat of the last few months.

'They would be risking much,' Abantu said.

Kemale wondered how much influence Abantu had with Theresa. Some Holy Fools had enormous influence. Others had been little more than court jesters. Zephyrinus V had rarely made a decision without consulting Abantu. Theresa was young, and, one would imagine, felt the need for advice from an older and ostensibly wiser mind. Abantu had access to her pretty much all of the time, but then so did all the other senior mandarins of the papal administration.

'And Astronomer Aggarwal Gustine believes it technically possible?' Theresa asked him. 'But that such an endeavour is definitely beyond the capabilities of the Sovranty alone?'

'Yes,' Kemale said.

The rattling of the rain on the roof increased momentarily. Some of the canals must have overflowed by now.

'I presume you have given some thought as to which people might be most fruitfully approached?' Theresa asked.

'Person, singular,' Kemale said.

'Who?'

'Karthika Hoffmann.'

'I did not get the impression from your report that she had an important position in the Gildija. The others you mentioned ... I can never remember Impæriyan names ...'

'Anthropologist Mao-Te, Historian Siemens, Tekgenicist Dolkar Ögedei,' Abantu informed her.

'Are they not more influential?' she asked.

'Hoffmann has no high official rank, nor a title that she considers significant enough to use,' Kemale said as he took out his vaporiser. He had given the matter of who to approach considerable thought on the monorail from Omrushak. 'But she is approachable. And, for reasons which I do not fully understand, people listen to her. Siemens is the most influential. She is the centre of the Gildija dissenter network. And she

moves closer to the levers of power day by day. But Hoffmann has influence with Siemens.'

Domini Canem growled in his sleep. Kemale wondered what the old wolfhound might be dreaming about.

'And the *should* of it?' Abantu asked. 'Should it be done at all?'

Kemale looked at Theresa. The *should* of things was her domain, officially.

'What is your opinion, Nuncio,' she asked him. 'I am sure you have thought about it. Should it be done?'

'It would be a breach of the Concordat,' he said. 'I cannot say that I do not have some reservations.'

A ghost – what Mao-Te called the flares – lit up the darkness, and for a moment the bogland was momentarily visible.

‘Why does the gas ignite?’ Xanadu asked him.

The humid night air smelled of salt and estuarine decay, and was alive with the buzz of insects. A near-full moon was appearing and disappearing from behind the clouds. Now and again, the eerie hoot of a bog owl or the cooing-grunting of an otter sounded somewhere out in the darkness.

They were sitting on the veranda. Hoffman was in the amphibious cabin, trying to get through to Polærisgradt on the radiotelephone. The cat was busy finishing off the remains of the grilled bass they had just eaten.

‘It contains phosphine,’ he said. ‘Which ignites when it comes into contact with the air.’

His face was little more than a shape in the darkness, his mane of silver-grey hair ethereal in the intermittent moonlight.

‘Some of the Gildija biosphereologists,’ he continued, ‘suspect that the amount of methane being released into the atmosphere has been increasing over the last twenty years. Can’t prove it, of course. That would need planet-scale measurements and planet-scale computation with modelling and simulation capabilities. It’s not something you can work out with a slide rule.’

His amphibious cabin, constructed almost entirely of wood impregnated with some water- and damp-resistant resin, was on one of the mounds of semi-dry land called bog-islands. During the extra-high flood tides that occurred two or three times a year, it floated on the rising water. The roof-mounted solar harvester provided power for the lighting, the water purification system and the biodigester. He also had a radio-teleprinter; there could not have been more than a thousand of them in all

of Impæriya, though standard shortwave radiotelephones were common enough. He used a small, flat-bottomed boat for his expeditions into the interior, and trips to Mærksængelgradtshka, the fishing village on the coast, fifteen kilometres down a labyrinthine network of channels, and for his expeditions into the interior. However, most of the time, Graeber – a taciturn villager in his seventies, who gave the impression of being a man both weighed down by life and simultaneously puzzled by it – delivered essentials twice a month.

‘You don’t find it difficult being out here alone for weeks on end?’

‘No,’ he said. It was a very definitive ‘no’. ‘I’m not like Hoffmann. I’m an observer by nature. I don’t feel the need to try to ... do things. Things sort themselves out. Or they don’t.’

Hoffmann said she’d needed a break from Polærisgradt politicking, that the *primaeval* atmosphere of the Rim Boglands, and their timelessness, would do her psyche good. But, of course, the Rim Boglands were not timeless, nowhere was. Not that long ago they had been frozen tundra, snow-covered most of the year, the hunting grounds of the extinct great white bears. Xanadu had once seen an almost near-perfectly preserved, taxidermised specimen of one at the Hall of Archives in Polærisgradt, its yellow-brown glass eyes staring accusingly, like all the taxidermised extinct mammals and birds she had seen, from the past. Mao-Te had made contact with a group of Bogland-Kinvolk, a family of about twenty, most of them older juveniles, who eked out a subsistence by fishing and fowling. They spoke something vaguely akin to old Mandarin, he said, so he’d been able in some measure to communicate with them, enough to organise a trading arrangement.

‘What you exchange the therak for?’ she asked.

‘Early neo-ancient coins. I have quite a collection by now, some of them amazingly well preserved.’

‘Do they know what they are?’

‘They know what they were used for.’

Hoffmann emerged from the amphibious cabin. She looked

preoccupied; not that that was unusual.

‘I eventually got through to Siemens,’ she said.

‘And?’ Mao-Te asked.

‘She said she could not find anything in the archives that might indicate that the Object may be something from the cosmonautic era.’

‘The archives are—’

‘I know,’ she said, before he could finish. ‘Absence of evidence does not mean evidence of absence.’

‘And the political situation?’ he asked.

‘She seemed confident,’ Hoffmann said.



Xanadu was surprised at the ease with which Mao-Te was able to find his way through the algae-green watery labyrinth, only referring to his compass now and again. The channels changed position over time, he’d told them, and from season to season, but only gradually. She didn’t ask him what they would do if they got lost. She noticed that he had a tattoo on his arm: a black, intricate geometrical shape, resembling the spine of a fish, an unusual design for an Impæriyan.

The sun had risen hours earlier, and there was still some freshness in the air. But they could already feel the beginnings of the heat, radiating down upon them from the cloud-white sky, which would soon transform the bog into an sauna. The vegetation, now rapidly growing lush in the lengthening spring days, was an impenetrable mass of giant yellow-green reeds and a species of hollow-stemmed plant with white flowers that looked like a survival from the Carboniferous. Swarms of diaphanous-, yellow-hued-winged dragonflies, all of the same species, were hovering and darting about over the mirror-like surface of the water. Occasionally, above the low-decibel whine of the boat’s electric motor, they could hear the cry of an invisible bird.

‘When the permafrost thawed,’ he said at one stage, ‘hundreds of mammoths were uncovered. There were attempts to clone

them using domesticated elephants as surrogate mothers, though it's not clear if that was successful. There were still been elephants in zoos and reserves at the time. Ironic really, attempting to resurrect the first megafauna species that humankind had driven to extinction using the last megafauna species it was driving to extinction ...'

An hour later the humidity was stifling. Xanadu trailed her sunhat in the water to soak it but the temperature of the water was almost that of the air, so it only provided a few moments of relief when she put it on again. There were fewer dragonflies now, but there were swarms of gnats that were impossible to avoid in the narrow channel.

'It should be a bit cooler when we're off the water,' Mao-Te said.

A little later, the channel opened onto a larger expanse of water and a large bog-island appeared in the distance through the heat haze.

'We need to make landfall on the western side,' Mao-Te said. 'The eastern side is inaccessible.'

The shoreline consisted of giant reeds, clumps of rushes, and here and there, small, dark, pebbly and sandy inlets. The bog-island was probably four or five metres above the water at its highest point, and largely grass-covered, but there were also clumps of yellow-flowered bushes. The trees, further back from the shoreline, looked like a species of willow. Some birds, little more than black specks against the clouds, were slowly circling above it.

They beached the boat in one of the inlets and dragged it up onto the grass.

'I propose we eat and have some tea before we move on,' Mao-Te said. 'It's a bit of a trek.'

'How much of a trek?' Hoffmann asked.

'About an hour.'

They sat under one of the willows for shade. Mao-Te unpacked some cooked rice and fried dried fish, and made some tea in the portable pressure cooker.

‘What are the rules of engagement?’ Hoffmann asked. ‘For when ...’

‘Just don’t do anything sudden. Anything that could be misconstrued. Anything that could be seen as intrusive, or aggressive. And always keep behind me, and be visible. That’s important. They will be wary of us. If they suspect anything is amiss, they’ll disappear into the vegetation. To them, we are ... We’ve got contraptions that fly through the air, boats that drive themselves through the water, and all manner of strange things ...’

‘As if from another world?’ Hoffmann suggested.

‘But they know we are not. Most Kinvolk clans believe that there was once a Golden Age when Earth was ruled by ... giants, magicians, demons, the descriptions vary ... and that we are their descendants, as they themselves are. Otherwise, Kinvolk beliefs and cultural practices are astonishingly different from clan to clan. Diversity of belief systems seems to be a human constant.’

It was slightly cooler than out on the waters, and there was a slight breeze, very slight, and intermittent.

‘Are you their only source of therak?’ Xanadu asked.

‘No. There is a trading station fifty kilometres down the coast, at Zheng-He-Gradt. The only reason I trade therak with them is because it’s what they expect. But they know it’s not the reason I’m here.’

He extracted a small glass jar from his canvas backpack and handed it to her. The blue-green and iridescent crystalline therak dust looked, as it always did, like some artificial substance, almost as if it were from another dimension of reality.

‘They burn it with herbs and inhale the fumes,’ he said.

‘Have either of you ever seen raw manna?’ Xanadu asked.

‘Once,’ Hoffmann said. ‘It’s like a resin, feels sticky to the touch. And it is black, a deep, pure and rather sublime black.’

They set off again, hugging the shoreline. They saw flocks of half a dozen Alexandrines several times, the green parakeets

that were common all along the Northern Rim. Occasionally the travellers fell into conversation.

‘Is it always so hot?’ Hoffmann asked. The physical exertion, even at the slow pace at which they were walking, was causing her to sweat profusely again.

‘At this time of the year, yes. But it can get cold in winter. The water can even freeze over. Not so much that you can walk on the ice, though. It’s quite a sight when everything is frosted over. Spectacular on a cloudless night, in the moonlight.’

Xanadu found herself thinking of when, nearly twenty years ago, she and Hoffmann had been lovers. Impæriyan mores regarding sexual relationships – though the word they used, which was both earthy and matter of fact, almost formal, was not literally translatable – had been new and intriguing. She had wondered, after her surprise at learning that Hoffmann was to be their liaison, and then meeting her, if they might somehow find themselves slipping again into that intimacy. One of her selves, though perhaps not the wisest one, had wanted it. But it had not happened. If it had happened, it would have been unusual, though in Antarkia, not unusual at all. Impæriyans compartmentalised their lives – with a deliberateness that could easily come across as rigidity, even coldness. On returning to the Commonwealths, it had taken her a couple of years to recover her previous ease with the fluidity of Antarkian mores. She’d met Hoffmann’s two offspring once, briefly. The encounter between mother and children had been, Impæriyan manners notwithstanding, even more formal than she had expected. Impæriyan infants spent, at the most, their first three years in the care of their birthing mothers; or in rare cases, with their biological mothers. No more than a handful of any women anywhere produced viable ova. And, like Antarkian or Afrikan women, they almost invariably used donated sperm cells. Pair-parenting, which was not uncommon in Antarkia, was relatively rare. However, many Antarkia children also had several cult-guardians, usually initiates of the mother’s cult-society. As to which arrangement nurtured the better human being? Perhaps

Antarkian ways nurtured the better Antarkian, and Impæriyan ways, with their large kinship families, nurtured the better Impæriyan. Mao-Te and Hoffmann had halted and were standing in front of the remains of a concrete structure, most of it rubble and overrun with vegetation

‘... could have been a military base,’ he was saying as Xanadu approached them. ‘The radiation and chemical toxicity levels are within the terrestrial range band.’

‘I don’t think the Antiquities Bureau have ever examined this site properly,’ he said. ‘I couldn’t find anything in the archives. And there are no warning obelisks.’

The crumbling walls had once enclosed what looked like a dry dock for ships. This didn’t make sense: the ‘island’ had never been surrounded by open water.

‘During the early anthropogenic warming period,’ Mao-Te continued, ‘there was competition by the northern capitalocracies for access to the polar hydrocarbon reserves and control of the new sea routes. When this place was built, the permafrost would have already been melting and the tundra turning into bogland. The only way in and out would most probably have been by air. If there was a road, there’s no sign of it. There might be some underground bunkers, but they would be completely waterlogged now.’

‘Or it could have been a boolean data storage and processing centre,’ Hoffmann suggested. ‘They were built as far north as possible. They were energy-intensive and needed a lot of cooling. And they were fortified, especially later, when the boolean phantomatic network was at the peak of its extent.’

‘It’s possible,’ he said.

‘What do the Bogland-Kinvolk think it is?’ Xanadu asked.

‘Just another ruin.’

The sun had already reached its zenith.

An hour later, they reached the Bogland-Kinvolk encampment.

‘Yes, he arrived yesterday.’

The voice on the telephone was female, with a strong Gröenland accent.

‘I would like to leave him a message to call me,’ Dianovitch said.

Kemale had a permanent bungalow in the Zeno Hostelry compound; he preferred being on the edge of the city.

‘Certainly, but I don’t know when that might be.’

‘It’s not dreadfully urgent. This evening or tomorrow will be adequate.’ He wanted to arrange one of his semi-informal chats with Kemale, something he always did whenever Kemale returned from one of his safaris to Afrika Minor, preferably over a slow meal in one of Polærisgradt’s better eateries. It was a way of keeping up to date on happenings in Roma Nova. ‘My telephone number is—’

‘I’m afraid that’s unlikely.’

‘Unlikely?’

‘Nuncio Hamlet Kemale departed again early this morning.’

‘Departed?’ Dianovitch repeated.

‘Yes. He left on a Circumpolar West a few hours ago. He said he would be gone for several days, possibly a week, even longer.’

The Circumpolars were the ten aero-liners that flew round the pole, five in one direction, five in the other, on a more or less non-stop basis, with scheduled landfalls all along the Northern Rim. The Circumpolar Wests were the westward-flying craft, and the Circumpolar Easts were eastward-flying. Odd, Dianovitch thought. Kemale was not known for safariing about. He suffered from airsickness, and sea sickness, and only occasionally ventured outside Polærisgradt.

‘Did he leave a forwarding address or number?’

‘I shall check.’

Dianovitch heard some papers being shuffled in the background. While he waited, he looked at the black-and-white photograph of the ruined Arabian city on the wall. The neo-ancients had been so sure that they alone of all previous cultures

truly understood how the world worked ...

‘No, I’m afraid not,’ the voice said.

‘I see,’ he said. ‘Thank you.’

He’d only learned of Kemale’s pending arrival by chance. The Nuncio graced Polærisgradt with his presence twice a year and stayed for about two months, usually very sensibly avoiding the Impæriyan winter. There was always at least an interval of three or four months between his visits. Dianovitch did a quick mental calculation. Kemale had been away for a little over six weeks. Which meant that he could not have spent more than a fortnight in Roma Nova. Normally he sent an official announcement of arrival to the Executive Committee and the Guardianship Secretariat. But this time, he didn’t appear to have done so. Or if he had, Dianovitch hadn’t seen it. And why on earth was he going on a circumpolar sightseeing tour?

Dianovitch took out his vaporiser, filled it and inhaled a long, slow breath of fresh therak ... the key to civilised life until it didn’t work anymore. And one knew the neurostimulant prophylactic was no longer working when one simply lost the desire for it. Or the physiological and psychological need for it.

He had a flight schedule for the Circumpolars somewhere among the stack of brochures on his bookshelf. He rooted it out and found the page with the scheduled landfalls for the Circumpolar Wests, and skimmed down through the list: Polærisgradt, Reykjavik City, Grøenland Port, Qaanaag-Thule, Inuvik, Zævergradt, Nova Vladivostok, Zheng-He-Gradt, Ziberiagradt, the Island of the Spheres, and then back to Polærisgradt again. He wondered where Kemale intended to disembark. If it was any further than Nova Vladivostok, which was about halfway round, he would have taken a Circumpolar East. But it should not be a problem to find out.

There was something not quite right about all this.

Kemale had contact with dissenters, but then that was only to be expected. The last he’d heard, Hoffmann, along with the Antarkian Xanadu Lakshmi, had gone on some recreational expedition to somewhere in the Rim Boglands, to some research

station run by that anthropologist – Mao-Te was his name, or something similar, another Gildijan – and also a dissenter. And now Siemens – who, he had to admit, has considerable rhetorical gifts; not that that made her right – was getting closer to being elected to the Executive Committee.

He decided to ask Dahon Quastimodo to look into it. He picked up the phone again.



When they returned, Hoffmann found a teleprintout waiting for her:

PLS CNCT. IMPRTNT. DNÖG. 1333.
PLEASE CONTACT. IMPORTANT.

DNÖG was Dolkar Ögedei's name-code. And 1333 was the call-code for the Gildija Mother House on the Island of the Spheres. It was not like Dolkar Ögedei to say something was important if it was not. Hoffmann glanced at Mao-Te's aged and loudly ticking wall chronometer. It was approaching seventeen o'clock. She typed in Dolkar Ögedei's name-code and sent a message saying she was available to receive calls until nineteen o'clock. Ten minutes later the teleprinter typed out a reception-of-message confirmation.

While she waited, she thought again about their encounter with the Bogland-Kinvolk; and how, on the long trek back to the boat, for the first time in weeks, looking at Xanadu walking ahead of her, she had felt desire.

The Gildija Mother House was a sprawling complex of single and multistorey slate-roofed buildings, most of them built with a type of sandstone found across the Archipelago. She had only been there once, fifteen years ago. It had been early summer, the time of the year when the days were long, but not too long; the best time to be anywhere in Impæriya. Everything had been a bright, fresh green, and the air was a heady mixture of blossom scents and the salty tang of the sea. She remembered thinking at the time how much Xanadu would have loved the idyllic peace of the place in summer. In winter, the Archipelago was a

dark world of freezing rains, fogs and howling winds, and the sandstone buildings were draughty and miserably heated.

A burst of static erupted from the earphones. She put them on and switched on the microphone. The operator's voice sounded far away. Dolkar Ögedei was put through to her.

'Xanadu Lakshmi is here,' Hoffmann found herself saying, though she was not sure why, after they had concluded introductory formalities.

There was silence for a moment.

'Nuncio Hamlet Kemale is ... Polærisgradt,' Karthika Hoffmann heard Dolkar Ögedei say. The reception was not good.

Kemale visited Polærisgradt regularly. There was nothing unusual about that.

'He's coming to the Mother House,' Dolkar Ögedei continued.

'To the Island of the Spheres?'

'Yes. He sent a radio message yesterday from one of the Circumpolars.'

'Did he say why?' Hoffmann asked.

'He said it was difficult to explain over the ether. He said he wanted to meet you ... He was very specific about it. Insistent. He said the matter was quote confidential unquote.'

'It always is with diplomats,' Hoffmann said. 'But I'm not there.'

'He said something about ... taking a boat to Mao-Te's place.'

'That's hardly very practical.'

The last time Hoffmann had seen Kemale was at the Biosphere Commission to discuss the Object from the Stars. The Commission had come to the unsurprising conclusion that the best course of action was to do nothing; that, in all probability, was the also wisest course of action. Since then, despite the fact that the Object had gone into orbit round Mars, she had become more certain that there was a natural explanation for the phenomenon. And that the Messenger Legend was exactly that: a legend.

‘It would be better if I came to you,’ she said.

‘I can arrange to send a boat to that fishing village with that unpronounceable name to pick you up. It should be there the day after tomorrow.’

‘I’ll be there,’ Hoffmann agreed, and swore silently. She was beginning to enjoy the isolation of the Rim Boglands. But on the other hand, it would be an opportunity to show Xanadu the Island of the Spheres. ‘The fishing village is called Mærksængelgradtshka.’



‘I think it might be wise to set up a more secure method of communication,’ Mao-Te said later.

‘Yes,’ Hoffman said. ‘That might be wise.’

‘I’ll give it some thought,’ he said.

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‘It was late evening when they finally arrived at the Island of the Spheres but still bright. This far north, the sun was now barely dipping below the horizon at night. Dolkar Ögedei was waiting for them on the jetty.

‘I saw the windjammer coming in,’ she said as Hoffmann and Xanadu loaded their rucksacks onto the luggage rack of the crawler she had driven down from the Mother House. ‘Hamlet Kemale is already here. He arrived the day before yesterday.’

The track ran along the shoreline. The tide was in, and foamy wavelets were rolling in from the sea, breaking on the pebble strand. The landside meadows were dotted with yellow and white wildflowers.

They drove a quarter of a kilometre, without incident, conversing casually. But then they went round a bend and suddenly there was a big, black-and-white-furred animal with two downward-curved tusks protruding from its whiskered, seal-like face, lying in the middle of the track, basking in the evening sun. It looked at them but showed no indication of intending to move out of their way.

‘She’s almost tame,’ Dolkar Ögedei said as she made to manoeuvre round it, ‘but they don’t know their own strength – or weight. She’s well over a ton. And the males are even bigger. Those tusks can be lethal.’

Xanadu had never seen a walrus before. The sheer size of it – it was nearly three metres from head to tail – both terrified and fascinated her.

‘They used to be a brownish colour,’ Dolkar Ögedei continued as they drove on. ‘If they hadn’t been genetically modified, the species would probably not have survived. One of the few tekgen successes. The black-and-white is an unintended side effect. There are not as many of them as there used to be.’

They passed some vegetable gardens and an orchard, the trees laden with the small apples that the Archipelago was renowned for.

‘I hadn’t expected it to be so verdant,’ Xanadu said.

‘Terraformed,’ Dolkar Ögedei said, ‘in a manner of speaking. Before the Twilight, all these islands were little more than stones and bare rock. And uninhabited. The whole archipelago was originally named after some neo-ancient monarch.’

‘Franz Joseph something,’ Xanadu added. ‘He was a European emperor.’

Twenty minutes later they were driving down a woodland track, under a long canopy of tall, green-leaved deciduous trees. Doves cooed in the vegetation. Xanadu was reminded of Tazma, where it was now winter, and dark for nearly twenty hours a day. When the trees thinned out, the slate roofs of several buildings appeared further up ahead.

The track took another turn and they passed under a stone archway with animal-headed gargoyles atop the two supporting pillars. One was of an ape-like creature, the other of a reptile of indeterminate species. A hundred metres later they drew up in front of a porticoed, three-storey, lichen-covered stone building.



‘I suggest we go for a relaxing stroll, Antiquarian.’

Unusually, Kemale was dressed in Impæriyan garb: a dark blue embroidered doublet, a khaki collarless shirt and loose trousers. His mane of long grey hair was tied back.

‘We can walk by the sea, Nuncio,’ she said.

The air smelled of vegetation and wet earth. It had rained during the short night.

‘Kemale will do just fine,’ he said. ‘We can dispense with formality, I think. Unless you insist.’

‘Call me Hoffmann,’ she said. ‘Is this your first time on the Island of the Spheres?’

‘Yes. I avoid boats and aero-liners whenever possible. All that swaying and rolling plays havoc with my stomach.’

The pathway down to the sea wound through the woods.

‘The buildings remind me of the monastic settlements of the European middle centuries,’ he said. ‘Before ecclesiastical architecture was influenced by Islamic and Han aesthetics.’

Some seabirds were flying over the green-grey water, which smelled of seaweed and was vaguely chemical. The megablooms had been unusually large during the last two months.

‘When I look out upon the sea,’ she said, ‘I always think how all life comes from it.’

‘All life on *this* planet,’ he said.

She wondered vaguely what the cryptic comment meant but let it pass.

‘Let’s go this way,’ she said. ‘It’s more interesting.’

They walked slowly.

‘I need your assurance that what I am about to tell you will remain between us,’ he said, ‘... for the time being.’

‘For the time being?’

‘Not to speak of it to anyone without my agreement.’

She thought for a moment. Whatever it was he wanted to tell her, he had hardly taken such trouble to see her for a triviality.

‘I agree,’ she said, not at all sure that she should have.

‘Once upon a time,’ he began, ‘about twenty years ago ...’

It took him close to an hour, uninterrupted except for the few times she asked him to clarify something, to tell her about Aggarwal Gustine’s discovery of the shuttlecraft. At times she thought that he was surely exaggerating, but his seriousness, the details he described, convinced her that what he was telling her must be true, in its essentials at least. In all her time with the Antiquities Bureau, she had never heard of a find so spectacular and few finds so completely intact, sealed off from the outside world for centuries. That the Sovranty would keep such a discovery secret from the Antiquities Bureau – while not to be condoned – was, she supposed, understandable. And the Antiquities Bureau also had its secrets. When he had finished, they walked in silence for a while. As to why he had revealed to her what he had revealed: perhaps his ‘masters in Roma

Nova' had decided they had kept it secret long enough. But one thing was sure, it was not something that could be handled discreetly for long. And once it became public knowledge, it would provide a feast on a silver platter for the gazettes.

'What is that?' he asked. 'A sculpture?'

There was a large stone sphere at the side of the track. It was about three metres high, perfectly round, like a gigantic stone cannonball, and there were several others, of similar sizes, in the distance.

'No, an entirely natural phenomenon,' she said. 'They are concretions, formed by the precipitation of mineral cement. Please don't ask me how.'

'So this is why it's called the Island of the Spheres?'

'Correct.'

He laughed.

'I though the reason might be something more esoteric.'

'They were once thought to be fossilised dinosaur eggs.'

They sat on a rock and took out their therak vaporisers. It was getting warmer. The sun was higher in the sky now and the sea had become calmer.

'Does anyone else know about this?' she asked him. 'Besides your people in Afrika Minor?'

'No,' he said.

'It will eventually come out,' she said, 'And when that happens, the Guardianship Secretariat and a lot of people in Bureaucracy circles will not be pleased. It's a serious contravention of the Concordat.'

Though most probably, in the end, there would be no graver consequence beyond a diplomatic note to the Holy See expressing concerned displeasure. Certainly nothing which might even remotely affect the frictionless supply of therak to Impæriya. But it would need to be handled carefully.

'I'm hoping we can avoid that for quite a long time,' he said.

So why then had he told her about it? she wondered. No doubt he was going to tell her why.

'I'm afraid,' he said, 'what I have told you is merely the

preamble.'

'The preamble?' she said.

'We have learned how to fly the craft,' he said.

As they walked on, he gave her an account of how they had done it and told her about the onboard electro-intel units, the training simulators, the first test flights. She found herself having to suspend her disbelief. But there was no reason to doubt the truth of what he was saying.

'Our pilots have flown them up to the stratosphere.'

'How high is that?'

'Sixty to seventy kilometres above sea level. They cannot generate enough thrust to reach the height that would be required to go into orbit but ...'

She stopped and looked at him.

'But what?'

'But there is a way,' he said.

They started to walk again.

Two hundred metres out to sea, a large, brown-sailed catamaran was skimming over the water, heading toward the jetty.

'Why are you revealing this now?' she asked. 'To me?'

'No secret can be kept forever. It would have come out eventually.'

She was certain that was not the reason.

'There is a way? What do you mean?' she said.

'I can show you, or at least the principle of it. But I need something to draw on. Pencil and paper?'

'There's the sand,' she said, indicating a stretch of beach revealed by the outgoing tide. 'You could draw on the sand?'

'I'll need a twig or something.'

He looked around and found a suitable piece of driftwood.

'This will do,' he said.

They made their way down to the seashore.

'Imagine this is Earth and this is the moon,' he said as he drew two circles in the sand. 'And imagine this is Copernicus Delta.' He drew more circles of various sizes. 'And this over here is

Mars. And this is one of the shuttlecraft we have discovered.'

Then – studiously avoiding any technical details – he began to describe how a shuttlecraft atop a rocket ship or even a 'missile-rocket' could be launched into space ...

'A missile-rocket?'

'A rocket ship that can only be used once,' he explained. 'All rocket ships were missile-rockets during the first half-century of the cosmonautic epoch. They are much simpler than rocket ships. They only need a basic gyroscopic guidance system.'

'Go on,' she said.

'At a height of perhaps two hundred kilometres above sea level – that's a hundred kilometres beyond the stratosphere – the shuttlecraft would undock from the missile-rocket and go into orbit. Then, using its own power system, it could travel to Copernicus Delta. The missile-rocket would fall back to Earth, burning up in the atmosphere.'

'To Copernicus Delta?'

'We have good reason to believe that the station is still largely functional. There may be robot-probes stored on board that are still intact. One of them could be used for an exploration mission to Mars ... and to the Object ...'

Hoffmann looked again at the arcs and the circles he had drawn in the wet sand ...

'Of course, it's somewhat more complicated than all that, but that is the general idea. Cosmonautics is not my field of expertise. And there's always the danger of a collision with orbital debris.'

She was sure it was very much more complicated.

'Mars is tens of millions of kilometres away.' It was all she could think of saying.

'Fifty-six million when it's closest. Two hundred and fifty million when it's at its furthest. But in reality, the shortest distance a robot-probe would have to travel to get there is probably a hundred million kilometres.'

But why?’ Dolkar Ögedei asked him.

‘Curiosity,’ Kemale suggested, and continued eating. ‘The garlic enhances the taste of these sardines rather excellently. And this Irlandia wine: one can taste those cool breezes and long summer nights.’

They were dining on the veranda of Ögedei’s cottage. It was about an hour before midnight but still light, the sky more misty than cloudy, and a white crescent moon was visible towards the east.

‘Mere curiosity?’ she repeated, glancing at Hoffmann.

Hoffmann had told Dolkar Ögedei everything and had suggested that the three of them speak in private. The whole thing was at once fantastic and absurd, but ... That the Nuncio expected them to give his proposal serious consideration was proof that if there was any quality he lacked, it was certainly not a dearth of confidence in his skills of persuasion.

‘If what the Antarkians suspect is ...’ he said.

‘But what do *you* think?’ Dolkar Ögedei asked him.

‘I keep an open mind.’

‘Your radio astronomy scientists have not been able to pick up any signals.’

‘There are many things that might explain that.’

‘Astronomer Aggarwal Gustine is a Teilhardian, is he not?’ she said, pouring herself another tumbler of the Irlandia wine.

‘A great many of our scientists are Teilhardians,’ he said. ‘They are in an order that lays great worth on the natural sciences.’

‘My understanding is that one of the core doctrines of Teilhardian theo-systemics,’ Dolkar Ögedei said, ‘is ... How shall I put it? ... that humankind’s destiny is ultimately cosmological.’

‘Potentially. But it is also an ethical perspective ...’

‘*The highest ethical aspiration,*’ she quoted, ‘*is to end all suffering in the cosmos, and all actions should be directed towards that end.*’

Hoffmann was momentarily surprised that Dolkar Ögedei

seemed to be familiar with intricacies of Teilhardian theosystemics; but then, she had had many dealings with Sovranty tekgenicists over the years. Afrika Minor was also dependent on Impæriyan reproductive technology.

‘For most Teilhardians, theo-systemics is more a guide to action rather than a rigorous description of how the cosmos is evolving,’ he continued. ‘Ending all suffering in the cosmos is a noble aspiration but hardly practical for us mere mortals ... But one can follow the precept in a humble way in our daily lives. But circumstances change and noble ethical aspirations can become ethical imperatives ...’

‘I see,’ Ögedei said, making no effort to conceal her incredulity.

‘The Landauer Shield is deteriorating,’ he said. ‘It may last another thousand years. But it will not last forever. When it fails, the prospects for any kind of civilised human life on this planet are ... bleak.’

Hoffmann thought of the Kinvolk ... and Mao-Te’s theories.

‘The view of the Holy See is that the hand of providence,’ he continued, ‘mystery that it is, is offering us an opportunity that should not be spurned.’

Hoffmann doubted that it was as simple as that.

‘What is being proposed,’ he continued, ‘not officially, of course, would be a unique mission. Initially. A dipping of one’s toes in the water of the cosmos, so to speak. Even Impæriya does not have the technical resources to do more than that. If successful – and the probability of it being so is not high – besides solving the mystery of the Object, it would also give us the opportunity to find out what happened to the colonies on Mars, if the terraformation has in any measure been successful.’

‘Going back out again ...’ Hoffmann interjected. ‘It would change things.’

‘Yes,’ he said. ‘There would be cultural-psychological implications.’

Kemale took out his vaporiser.

‘From what Hoffmann has told me,’ Ögedei said, ‘my

understanding is that the rocket ship – the missile-rocket – you have been secretly building is based on very early German–Russk cosmonautic technology. Not quite a plumbing job but not that sophisticated either. And that you have been acquiring materials and components from various sources in Impæriya, discreetly, surreptitiously. But that there are some essential parts you have been unable to get hold of?’

‘We have been unable to obtain, or build, many of the crucial items for the propulsion engine, some extremely finely engineered components crucial for the direction-control mechanism.’

‘And you believe that we may be in a position to supply such?’ she said.

‘In exchange for two of the shuttlecraft,’ he reminded her. ‘On completion of a successful launch. Delivery modus to be decided.’

‘Before the Gildija could take any position on all this,’ Hoffman said, ‘we would need all the specifications of the parts you need.’

‘Naturally,’ he said.

He extracted a small metal box from his doublet pocket and handed it to Hoffmann.

‘This contains a roll of microfilm,’ he explained, ‘which will provide you with a very comprehensive and precise description of the items we require.’

Hoffmann resisted the urge to open it.



Kemale left the next day on a Circumpolar East.

‘He’s certainly taking precautions,’ Dolkar Ögedei said as she and Hoffmann walked back from the aerodrome. ‘Going the long way round like that. I hope he’s not being watched. The logs will show that he stopped off here.’

The *Lubna Al-Qortobia* was already out over the sea. But it was still possible to just make out the name stencilled along the side of the aero-liner’s faded indigo envelope.

Hoffmann was silent for a while.

‘So it seems that the powers that be in Afrika Minor,’ she said eventually, ‘have made a decision to go back out into—’

‘The outer darkness?’

‘The Kurators are as conservatist as the Guardianship Secretariat ... Can they really be entertaining dreams of a second cosmonautic era?’

‘The Cosmological Church does have a history of remaking themselves every few centuries,’ Ögedei said. ‘It transformed itself completely following those late neo-ancient archaeological discoveries. It revised its Holy Books, adding the new epistles and gospels, as well as the Teilhardian and Weilian compendiums, and instituted the extasia rituals.’

‘Getting our hands on two of those space vehicles is a tempting proposition,’ Hoffmann said.

‘Is it possible to supply what he requested?’

Vast quantities of equipment that the Antiquities Bureau had recovered over the centuries and which had been deemed salvageable were stored in the mazes of neo-ancient subterranean complexes that had not collapsed or become waterlogged.

‘Very possible.’

‘If even a whiff of this gets out,’ Ögedei said, ‘Dianovitch would leave no stone unturned. It would need to be done in such a way that it would be very difficult to prove our involvement.’

‘That goes without saying.’

‘Eventually, of course, it will all become public.’

‘And when that happens?’ Hoffmann asked.

‘We would be in a new world.’

‘And if ... if the Object turns out to be—’

‘That is extremely unlikely,’ Ögedei said.



Xanadu had not expected this: to see again that familiar – from nearly two decades past – flushed expression of erotic want on Hoffmann’s face, and then of serenity momentarily attained.

Hoffmann – how typically! – had simply spoken to her with that Impæriyan directness, and suddenly intimacy between them was there again, as if the years that had been had never been. But then, everyone loved in their own particular way. It brought back memories, and of how at first, back then, Xanadu had found the prospect of their intimacy unnerving ... She had never been able to find the right words to describe the maelstrom of arousal and tranquillity it released within her. Afterwards, in the tranquil afterglow of their sharing, they drank bowls of scented tea and talked.

‘I can’t tell you the details ...’ Hoffmann said, lazily inhaling a breath of therak. She was still nude, except for her jewels, but her nipples were no longer erect. Outside, the birds of the Island of the Spheres were singing, and the sun was beginning its evening descent. ‘Do you think that humankind should go out again ... into space?’

An image flashed through Xanadu’s mind: an old colour photograph, taken from a rocket ship or an orbiting station, of Jupiter and its moons – Io, Europa, Ganymede and Callisto, alien, non-human worlds – suspended motionlessly in endless blackness.

‘We do not need to again plant our ensigns on alien worlds ...’ she said. ‘We need to learn to live in harmony with the biosphere.’

‘The biosphere is dying.’

‘Then maybe we need to learn to die with the biosphere. Everything dies ... in this dimension of being. There is still beauty in the world.’

‘*The stars, countless as grains of sand,*’ Hoffmann said, quoting Ní Montefiore. ‘Have you ever had a vision?’

‘Glimpses.’

‘And the Ataraxic Vision?’ Hoffmann asked. ‘The Island in the Lake.’

‘The right time for that is when the therak no longer works, before the end.’

‘He spent two days on the Island of the Spheres,’ Dahon Quastimodo said.

Dianovitch switched off the radio-television set.

‘On the Island of the Spheres!’ he repeated as the black-and-white image disappeared.

That didn’t make sense. Kemale had taken a westward Circumpolar, in the Grønland direction. If he had been going to the Archipelago, surely he would have travelled eastwards. But Quastimodo had read his mind.

‘He wanted to give the impression he was travelling in the opposite direction,’ he said.

She was looking as fit and muscular as ever, her purple hair freshly coiffured. He had more than once reminded himself to check her exact age in her file but had never got around to it. He was sure she was older than she looked.

‘And whom did he meet there?’ he asked her.

He trusted Quastimodo more than any other of his small team of investigators to deal with delicate matters, and this affair was delicate. When he asked her to investigate something, she invariably delivered.

‘Karthika Hoffman. He seems to have spent nearly all of his time with her. But he also had discussions with Dolkar Ögedei, or rather the three of them had discussions together.’ Dolkar Ögedei, the tekgenicist, another one of Hoffman’s dissenter clique: he knew of her but had never had the pleasure ... ‘The Antarkian Xanadu Lakshmi is also on the island, with Hoffmann. Both have booked passage on a Circumpolar to return here in a week’s time.’

He was fairly certain that Hoffmann rarely visited the Archipelago, if ever. In fact, he was sure of it.

‘I think it’s safe to conclude that Hamlet Kemale went there especially to meet up with Hoffmann,’ she added.

But why there? he asked himself. Kemale could easily enough have met her in Polærisgradt. But then he remembered. Hoffmann, with the Antarkian woman, had been on some expedition to the Rim Boglands at around the same time, which

was perhaps a day's sailing from the Island of the Spheres. So, whatever it was all about, Kemale must have thought it pretty urgent.

'I presume you have no idea as to the nefarious purpose of their rendezvous,' he said.

'Not presently.'

'You are sure that the source of this information is reliable?'

'As sure as I can be,' she said.



Hoffman was gazing idly out of a gondola porthole on the Circumpolar back to Polærisgradt, with Xanadu asleep beside her, when she finally decided that she would suggest to Siemens that they accept Hamlet Kemale's proposition. They were flying beneath the clouds, the Arctic Sea, less than five hundred metres below them, a shimmering expanse of greyness and the chemical orange blotches of the first of the summer's algae blooms. When they disembarked at Polærisgradt Aerodrome, she had already begun to plan how to proceed.

13

Wallace slowly flipped through the green-and-black images on the screen of Hoffmann's portable microfilm viewer, pausing occasionally to examine some of the engineering drawings and specifications in greater detail. They were – Hoffmann often thought of them as male, though she was not sure why – a tall, sinewy being with angular features and a shining, hairless skull. All cybionoids, whom the neo-ancients thought of as the first post-human species, were both hairless and sexless. Born a few years after the cosmonautic epoch had drawn to a close, Wallace had never ventured out to the gas giants and their moons. It had taken Hoffmann several weeks to arrange a meeting.

'This is very old technology,' they said eventually. 'Early missile-rockets with hydrogen-oxygen propulsion engines. Flammable hydrogen. Not non-flammable hydrogen-N. I presume you have some idea of what is involved, in terms of volume, weight, that sort of thing?'

They were in one of the balcony-alcoves overlooking the vast reading chamber of the Hall of Archives. The light from the pale grey arctic sky flooding in through the glass-domed roof provided perfect illumination during the summer months. The acoustics were such that any reader below, huddled over their documents and microfilm viewer, tempted to eavesdrop, would have heard no more than muffled whisperings.

'Something about the size of a crawler,' she ventured.

They smiled in their odd, bemused, squirrel-like way. Hoffmann considered herself a reasonably astute judge of character, but with Wallace, she could never tell how they were going to react to anything or say next.

'A very large and extremely heavy crawler.'

They were a master engineer, and had been for a couple of centuries at the Antiquities Bureau's LaTour Facility, a

sprawling complex outside Nova Vladivostok, where recovered neo-ancient equipment was reconditioned.

‘How would you go about doing it?’ she asked.

Wallace never came to any of the discreetly organised dissident meetings, their sympathies lay with the movement; she felt intuitively that they were someone she could trust. So she had told them as much as possible without revealing that the plan went beyond launching a missile-rocket into orbit, that the Afrikans planned to attempt to reach Copernicus Delta in the hope of finding a serviceable Sullivan-Orlowska magneto-engine robot-probe there – a distinctly remote possibility, she was sure – which they could then send to Mars and the Object. If Wallace agreed to help – and she was not at all sure that they would – she would then tell them everything.

‘I haven’t agreed to do it,’ they said.

‘Humour me.’

‘Find some early neo-ancient atomic missile-rockets and cannibalise the components needed. Which, officially, should have been destroyed when they were originally found. All warheads were removed of course. And most of the missile-rockets destroyed, but not all of them.’ One of the main duties of the Antiquities Bureau during the post-Twilight decades had been decommissioning atomic arsenals. Most of the weapons had been moribund by then but were still a danger. ‘It’s a miracle that so few of them were used in anger over the centuries.’

‘And how would you find these officially non-existent items?’

‘The Bureau archives might be labyrinthine but if one knows where to look ...’

‘Which you do. Know where to look.’

‘What we can’t cannibalise, I’d have to arrange to have manufactured,’ Wallace continued. ‘I would only trust my own people to do all of that ... discreetly. So it would look like just a bunch of engineers fiddling about with bits and pieces of strange machinery from the bygone times that nobody is that much interested in. The final calibrations would need to be done

in Afrika Minor. As for transporting the items to the final addressee – not department.’

‘And the cost?’

‘From what you told me regarding available funds, I cannot see there being a problem there. With the aid of some creative bookkeeping.’

‘It would all need to be done in such a way that nothing could be traced back.’

‘I had assumed that.’

Somewhere in the distance, a bell sounded three times. The Hall of Archives would be closing in half an hour.

‘If it could be proved that ...’

‘Yes,’ they said. ‘If it could be proved ...’

They sometimes had a habit of repeating what one said. Hoffmann was never sure whether it was a sign of approval or disapproval, or something else entirely.

‘The consequences would be ...’

‘Unpleasant,’ he said. ‘But—’

‘Yes.’

‘Our glorious ancestors’ practice was to lock up miscreants in concrete cubicles for years, for life even, letting them out once a day to walk around a concrete yard for exercise, similar to how they kept animals in ... What did they call them?’

‘Zoological gardens.’

‘Punishment is vengeance and vengeance is not justice. Imprisonment is only permissible to protect others.’ The quote was from the Universal Declaration of Human Obligations. ‘So we are unlikely to end up in cages. And we’ve given up banishing lawbreakers to the Wilderness. But yes, there would be consequences.’

Banishing lawbreakers to the Wilderness, so-called external banishment, in many cases an effective death sentence, had been abandoned centuries ago. However, internal banishment to a remote area was a possibility, or even secure internal banishment to a complex of buildings, which was reserved for those who were judged a serious danger to others. Minor

offences were dealt with mainly by restorative orders.

They returned Hoffman's portable microfilm viewer to her. She extracted the roll of microfilm and gave it to him.

'I have several copies,' she said.

On the way to the exit, they passed a row of a dozen or so small sculptures displayed on plinths, all intricately carved from some dark, near-black hardwood. Half-human, half-vegetable forms: arms and legs becoming branches metamorphosing into torsos that became tree trunks in whirls of honey-like fluidity; faces, breasts, genitals, both male and female, all merging and becoming each other.

'Art?' Wallace said as if they had never seen a work of art before. Sometimes they playacted the caricature cybionoid; at times so well, she was not sure if they were acting.

'They're Antarkian dream sculptures. Sculptures of dreams.'

'Do Antarkians really believe that dreams can foretell the future?'

'They see dreams as glimpses into deep substrata of being, formless forms outside time. In dreams, they believe – or at least some of them do – that part of one's psyche drifts forward and backwards in time. One does not even dream about some future per se. It is more that one dreams distorted fragments of future dreams that contain distorted memories of events which have not yet occurred ... If that makes sense?'

'Not really.'

Cybionoids rarely dreamt and when they did, remembered what they had dreamt even more rarely.

'I will consider what we discussed very carefully,' Wallace said when they were outside and about to part ways.

'We need to devise a simple code for communications,' she said. 'Something simple. Thinly disguised euphemisms such as "the locomotive" and "the engine" would probably be sufficient.'

SEVERAL MONTHS LATER

14

The stamp on the envelope depicted the papal coat of arms. The letter was from Xanadu. What, Platonow wondered, could she be doing in Afrika Minor? Some of the Interpolars did make a stop-off at Roma Nova. But why post a letter from there? She would arrive in Antarkia herself before it would. Unless she was going to spend some time there?

‘A letter from Her Holiness?’ Pelikan Ghosh jested.

‘We correspond frequently,’ Platonow jested back, as he relocked his post box.

Pelikan Ghosh’s had been empty.

‘No news is good news,’ he said, ‘I suppose.’

Pelikan was remarkably well preserved for a man in his eighth decade, Platonow often thought, with only the odd streak of grey in his jet-black curly hair, and always a mischievous glint in his grey eyes. He usually received quite a lot of mail. People liked him. Perhaps because he simply took them as they were and had few expectations. Platonow had long thought he would have got bored with endless rummaging around in the dusty remnants of the past. But the archivist said rummaging around suited his ‘inquisitive nature, and zealous lack of ambition’. He had a tattoo of a snake down the left side of his face, a once popular motif, despite – or perhaps because – there were no snakes on the Antarkian Mainland.

Platonow put Xanadu’s letter into his shoulder bag.

The Symposium was a circular stone building with a large inner courtyard. They found a vacant table on one of the outward-facing arched verandas, ordered tea and took out their vaporisers. A herd of dwarf kangaroos was grazing in the distance; the animals migrated inland from the coast every

summer. And beyond them, the crystal-white Great Ice Sheet was visible, majestic under the pale grey sky.

‘So your enquiries bore fruit?’ Platonow said.

After he had returned from Impæriya, Platonow had asked him if he could look in the archives for any records there might be on the Messenger Legend. But only, of course, if he had some time on his hands; Platonow found him somewhat intimidating at times.

‘For you to judge,’ Pelikan said, extracting a thick card-covered book from his file case and handing it to Platonow.

‘*Memories of the Cosmonautic Epoch, Volume III* by Sebastopol Dhzava,’ Platonow said, reading the title and author name, and opening it.

Their tea arrived: two steaming, spice-scented bowls.

‘Dhzava catalogued what he considered to be the most significant legends and collective fantasies of the period,’ Pelikan said. ‘There’s quite a bit on phantomatic worlds. Tales of silos of disembodied brains electronically connected to the phantomatic network. There are twelve volumes in all. This one contains a chapter on the Messenger Legend.’

‘I thank you,’ Platonow said and packed the book away.



Half an hour later, finally alone – Pelikan had excused himself, pleading some previously arranged appointment – Platonow put on his spectacles and opened the letter from Xanadu.

Our journey to the Rim Boglands went without mishap: three days’ plain sailing over calm, and at night, algae-luminescent waters in a sleek windjammer carrying miscellaneous goods to some of the settlements. Karthika Hoffmann and I – we were the only passengers – shared a small and claustrophobic cabin. Which meant I spent most of my time on deck, staring at the sea and the horizon. And thus left for the most part to my own thoughts; none of the crew had probably met an Antarkian before and seemed wary of the exotic creature suddenly cast

into their midst.

Anthropologist Mao-Te's bogland research station is an amphibious cabin fifteen kilometres inland from the coast. Getting there involved navigating through a labyrinthine network of channels surrounded by marsh vegetation that looked as if it was from a pre-human, even pre-mammalian past.

She had written in Tazman, he noted. Normally, they corresponded in High Antarkian.

My encounter with the Bogland-Kinvolk group that Mao-Te has been intermittently observing now for two years was a curious experience. Their encampment is several hours' journey in a flat-bottomed boat from the research station and situated on a large 'bog-island', across which we had to trek for more than an hour. When we reached it, Mao-Te had us wait about a hundred metres distant until they had seen us. Eventually, a figure appeared and began slowly walking towards us. A child, I thought at first, because of her diminutive height. It's difficult to say what struck me first about her, when she eventually stood in front of us, her dark brown eyes smiling casually at us. Perhaps it was how so very short in stature she was, or how her pale skin was covered in intricate obsidian-black tattoos. She was bare-breasted, clad only in a loincloth patched together from sun-bleached synthetic materials, obviously salvaged from some neo-ancient site. Her hair, black-grey, was done up in intricate braids; and she was wearing earrings with those multicoloured, neo-ancient bead-like electronic components hanging from them. She said something in their Mandarin-like language to Mao-Te, and they exchanged the customary Bogland-Kinvolk greeting gesture: a hand greeting in which the tips of the fingers are briefly touched, but the palm of the hand is held upright. He then introduced Hoffmann and myself, and we exchanged greetings with her in a similar manner. Her name was Burning Grass. Later, Mao-Te told us that she was over thirty years of age,

which is almost elderly for a Kinvolk, and that she was not exactly a 'chief' but more what they call in their language an 'interpreter of signs'.

Their encampment consisted of several shelters, crudely constructed of branches and leaves, arranged haphazardly around a smouldering fire in a ring of stones. We seated ourselves under the shade of a willow, and after several minutes others appeared. Two of the men, respectively named Dusk Star and Giant joined us; though the latter was as short as the others. The remainder, about twenty of them in all, watched us silently during the whole of our conversation. Most of them were quite young (as far as I could tell). All were similarly pale-complexioned and some even shorter than Burning Grass. Except for the very small children, all had tattoos similar to Burning Grass's; and a few had tattoos resembling a fish-spine design, similar to the one Mao-Te has on his arm.

Mao-Te spoke with Burning Grass for a long time but told us very little of what they were conversing about. Dusk Star and Giant made only the occasional comment. After half an hour, he produced a small glass jar of therak dust, which he trades with them; and Giant produced a small pouch, made of the same synthetic material as their loincloths, and which contained five small, slightly corroded but surprisingly well preserved, silvery, early neo-ancient coins. (They used to clean them at first, Mao-Te says, but he had told them it was better if they did not.) Giant said the coins came from the ruins of a 'great city a two-day walk away in the hot lands' (to the south), but refused to say more. The exchange involved no bargaining, which surprised me somewhat. They served us a tea made from some bogland herb, in crude clay bowls, and strips of smoked fish wrapped in leaves. The conversation went on for perhaps another hour after this, but Mao-Te translated very little for us; which, as you can imagine, was frustrating; towards the end, Hoffmann and I were exchanging bored glances. My overall impression was that, beyond some initial surprise at our arrival, they were neither overly curious about us ... nor envious. We are just

something that comes in and out of their lives, of no great import.

On our return journey to the research station, Mao-Te discussed the reasons why he believes the Kinvolk are evolving biologically. Which, to summarise briefly, are more or less as follows:

They are nearly all pale-skinned. He says it is due to their being semi-nocturnal. To avoid the daytime heat mainly. They spend as much time foraging at night, by the light of the moon, as they do during the day. A pale complexion enables the better absorption of sunlight and the production of certain vitamins.

Their short stature. Due to their being foragers; which most are, though the Bogland-Kinvolk also fish. A smaller body requires less nutrition.

Their superior night vision. Again due to their semi-nocturnality. And he suspects they have a more sensitive sense of smell.

They mature sexually at a very young age. (Several of the females were pregnant, including some that he assured me were as young as eleven or twelve). This has to do, he believes, with adapting to shorter lifespans, inevitable due to insufficient consumption of therak. (Animals survive without therak, but have also shorter lifespans than humans, and mature sexually often within a year.) Early sexual maturation also makes up for frequent natural abortions.

Karpathian fever immunity (he suspects).

Shortly after this encounter, we sailed to the Archipelago. But an account of that journey and its circumstances shall have to wait until we meet in the flesh.

Perhaps, he thought, she was concerned about prying eyes ... Few Afrikans, he imagined, could read the Tazman dialect. But why would anyone want to read her correspondence?

I arrived here (in Roma Nova) three days ago on the Diogenes of Sinope after a longer and more uncomfortable journey than I had anticipated. We were forced out over the Atlantic by a

series of north-heading zurbo-cyclones south of Irlandia and ended up having to make do on basic rations and cold fare for several days before eventually making landfall.

Roma Nova is hot and dusty at this time of the year. Hardly anyone ventures into open space during the midday hours without wearing one of those wide-brimmed sunhats or without a parasol. The city is not directly on the estuary itself; it's ten kilometres inland and joined to it via its famous Grand Canal. The estuary looked paradisiacal from the air, but I have been told it is relentlessly humid. Its waters are infested with 'sea wasps' (Chironex fleckeri), one of the most venomous of the jellyfish. They breed there. They have more evolved eyes than other jellyfish and are believed to hunt.

Saint Peter and the Magdalene's is the indisputable centre of the city. No photograph can truly convey a sense of its titanic dimensions. There is nothing of its size in the Commonwealths nor in Impæriya. But, I must admit, I do find it an inharmonious structure, ugly even, with its mismatched jumble of ancient Egyptian minarets, Mediterranean temple columns, an Islamo-Baroque mosque dome and other peculiarities. The interior is equally discordant: a cornucopia of murals depicting surreal incidents from the lives of their saints and garishly painted statues of winged angel-demons. But it appears there is method in the near ugliness of it; Cosmological Christianity eschews excess of beauty in art on the grounds that if an object is overly aesthetically pleasing, it can distract the viewer from the deeper theo-systemical truths that the image or the form is attempting to convey.

The buildings that were transplanted, brick by brick and stone by stone, from Roma Antika when it was finally abandoned, however, are aesthetically awe-inspiring. Seeing them in reality, one feels the liminal presence of the distance past. Most of them are situated in the streets around Saint Peter and the Magdalene's Piazza among the nondescript barrack-like offices of the various congregations and bureaucracies. The largest one is a round, domed, pre-Christian temple, later converted

into a basilica called the Pantheon, which, I believe, means 'common to all the gods' in ancient Greek or Latin. It towers above everything around it, and its massive bronze doors are said to be from the time when it was originally constructed.

But most of the buildings are adobe-constructed, with thick walls to keep out the heat. Most have balconies and solar harvesters on their roof gardens. All show signs of tropical decay. There are monkeys everywhere. The animals are twice the size of cats and are forever making a screeching racket, and there are latticework gratings on nearly all windows and doors to prevent them from getting in and pillaging anything edible.

Tomorrow, we safari inland.

Obviously written in haste, Platonow thought as he finished reading it. And not a word as to why she had decided to stop off in Afrika Minor.

15

The missile-rocket had been moved into position and was now standing upright on the launchpad in the middle of the sand-covered airfield. The dark grey shape of the gigantic metal cylinder, supported by a scaffold-like launch gantry, looked like something that had survived from the early days of space exploration waiting patiently to be launched on some cosmonautic mission into the unknown. But then, Hoffmann supposed, that was what it was. Wallace had said that the ground crew had to couple six flatbed trailers together to transport it into place.

She had taken a Circumpolar East from Polærigradt and, as Hamlet Kemale had done during his clandestine visit to the Island of the Spheres, taken the long route. She'd then spent two days in Reykjavik City, losing herself in its urban anonymity, before taking a cargo windjammer that had a few cabins for passengers across the Atlantic to Irlandia; and from there taken one of the Interpolars that stopped off at Roma Nova. She hoped she had covered her tracks sufficiently; but so far, there was no indication that she was being watched. She had met Liam Dianovitch two weeks before he had gone to Grœnland Port on some mundane official business, and he had not displayed the slightest curiosity about anything she might be doing, but his apparent studied incuriosity could well have been deliberate. Xanadu had arrived in Roma Nova a week earlier, taking a more direct route.

Wallace had agreed more readily than she had expected to supply the equipment the Afrikans needed. And had then spent several days rummaging around in the Antiquities Bureau archives on the Island of the Spheres until they found what they were looking for. Three early missile-rockets, stored in underground bunkers just north of Moskov City, the dusty,

borderlands settlement on the edge of the Wilderness that had once been the capital of one of the Russk Autocracies. It had taken them two days of searching the dank, airless caverns to locate two of them. There had been no trace of the third one. The hulls of the fifty metre long missile-rockets showed their age, but their German-Russk engines had been methodically smeared with a non-biodegradable oil or grease compound and were virtually corrosion-free. Wallace wanted to recondition the engines at the LaTour Facility, safely away from any possible eavesdroppers. But transporting the propulsion engines thousands of kilometres from Moskov City over dubious roads to Nova Vladivostok would have been taking an insane risk. Wallace had considered doing the work somewhere north of Moskov City, not too far from the coast; but there was nowhere suitable. Eventually, they had decided that they would have to somehow transport the partly disassembled engines to Afrika Minor by sea and do the work there. To get them north to Zævergradt, Wallace and their crew had had to use two heavy-duty steamers with equally heavy-duty trailers. It had taken them three sixteen-hour days of driving over roads that had not seen a repair crew for decades, in darkness, cold and incessant rain. Or rather, three sixteen-hour nights; being winter, there had only been a few hours of daylight. Hoffman had arranged for the Afrikans to send a windjammer to Zævergradt and made sure the funds provided by Kemale flowed punctually to where they were required. The cargo had been listed as 'industrial machine parts'.

'We've tested it numerous times on the horizontal rig,' Wallace said.

'Were there any problems?'

'There's always problems. But nothing we could not fix.'

'Sounds too good to be true,' she said.

'Sometimes things do work out.'

'Shall we join the others on the observation stand?' she suggested.

From her vantage point on the cliffs overlooking the valley, Quastimodo scanned the scene with her monocular, examining the missile-rocket on the gantried launch pad. She was sure that was what it was, not a reusable rocket ship. There were no identifiable markings on its near-featureless metallic surface. Several crawlers with flatbed trailers were parked around it and, three hundred metres off to the right, an observation stand had been erected.

She'd hired the crawler several days earlier at a dusty settlement called Omrushak. She had parked it in a narrow, shaded ravine, securely out of sight, half an hour's walking – or rather climbing – distance away. Polkableu, whom Dianovitch referred to as 'our secret agent in Roma Nova', had drawn her a surprisingly accurate map of the route. Though he had not volunteered how he had known that Hoffmann, the cybionoid Wallace, the two other Impæriyans, and the Antarkian Xanadu Lakshmi were here; and she had not pressed him. However, he knew nothing of what their mission in the Sovranty might be. After she had left the main thoroughfares, she had driven by night with the headlamps switched off, mostly over faint tracks and, at times, over rough open ground. Luckily, there had been sufficient moonlight to drive by; the night clouds had been intermittent most of the time. During the daylight hours, she had done her best to camouflage the crawler by covering it with a sand-brown tarpaulin and had slept in the relative cool of its interior.

Two figures in brown Impæriyan-style work coveralls were making their way towards the observation stand. She was reasonably certain that it was Hoffmann and the cybionoid Wallace but couldn't be certain.

She examined the launch gantry again through the monocular. Judging from the height of the figures carrying out various tasks at its base, the missile-rocket was about fifty metres high. Hydrogen-oxygen fuelled, she presumed, from the look of the three propulsion nozzle bells. Primitive in comparison to later

Sullivan-Orlowska superconduction magneto-engines; though early neo-ancient cosmonauts had managed to get to the moon using missile-rocket technology. But there was something odd about its nose cone – or what should have been its nose cone. Instead of it being aerodynamically shaped, it looked as if the tip of the upper section of the missile-rocket had been sliced off. In fact, instead of a nose cone, there was a platform of some kind. Which didn't seem to make any sense.

As she watched Hoffman and Wallace – she was now sure it was them – and the movements of the crawlers with the flatbed trailers, she sensed that something was about to happen, and sooner rather than later.

The thought occurred to her that the missile-rocket might be a weapon, but she dismissed that as an outlandish idea. But whatever it was, constructing it had required a considerable amount of materials and effort, and extremely specialist expertise; no doubt this was why Wallace was involved.

Hoffman and Wallace climbed the steps to the observation stand – about twenty people were standing on it now – and they were greeted by an Afrikan with long dark grey hair, the Nuncio Hamlet Kemale perhaps. She was able to identify two other figures with reasonable certainty: the Teilhardian Aggarwal Gustine, from the red Teilhardian habit – worn no doubt due to the official nature of the occasion – and his walking stick, and Xanadu Lakshmi, from her Antarkian dress.

Another indecipherable announcement came over the crackling loudspeaker – she couldn't make out any of the words; her Afrikan was less than rudimentary – and everyone on the observation stand looked in the direction of the launchpad. She wondered if the missile-rocket was about to be launched, but then noticed that they were looking at something in the sky. She pointed the monocular in the direction she thought they were looking in and scanned the grey clouds. It took her only a few moments to find it: a bright, pulsating electric-blue point of light, approaching from the west.

She watched, puzzled. It definitely wasn't an aero-liner or a

dirigible. As the light grew brighter and began descending, gradually she was able to make out its shape. It was not like anything she had ever seen before. The Guardianship Secretariat had a few heavier-than-air aircraft – biplanes mainly, wood-framed, canvas-skinned, propellered – and the Antiquities Bureau also had a few, as did the Kohors Helvetika. But no one had anything even remotely resembling the flying vehicle she was now observing. She wondered, implausible though the idea was, if it might be a neo-ancient craft that had been recovered from some forgotten Wilderness bunker and that the Afrikans had figured out how to fly. She tried to remember the little she knew about neo-ancient flying technology. Mostly, jet engines of various types had been used, except for helicopters or remote-controlled and autonomous drones. Then she realised that the blue light was the electric-blue plume of a Sullivan-Orlowska magneto-engine. She could see its not particularly aerodynamic shape and ellipse-shaped portholes, and hear the hissing sound of the magneto-engines. When it was directly above the missile-rocket, it stopped and hovered in mid-air. Then, slowly, it began to descend towards the platform on the top of the missile-rocket. Its electric-blue propulsion plume extinguished as it completed the docking manoeuvre, and the hissing sound of the Sullivan-Orlowska engines gave way to a silence that was filled by an echoing applause from the observation stand. It was a neo-ancient space vehicle.

Then nothing much happened for a while.

She wondered if they were going to launch the missile-rocket with the space vehicle atop it. But to what purpose? She visualised the hydrogen-oxygen propulsion engine firing, flames, the launch gantry falling away, just like she'd seen in old black-and-white radio-television tapes of the first lunar and Mars missions. But that could be in several hours' or even days' time.

It was difficult to think straight in the heat. The equatorial sun was at its zenith, glaring through the cloud cover. The hottest

hours of the day were yet to come. She took a sip of tepid water from her flask. She considered taking shelter in the relative cool of the shaded crawler interior for a while. But she would most likely fall asleep, and by the time she'd heard the sound of the missile-rocket launching, if that was what they were planning to do, it would already have disappeared into the clouds.

Suddenly, the space vehicle's plasma engines ignited again, and it took off, rising slowly into the air until it was hovering about a hundred metres directly above the missile-rocket. Then there was a bright flash of electric-blue light and it flew off in the direction of a large blockhouse-type building nestled among the cliffs on the other side of the valley. For a moment she thought it was going to land there, but then it doubled back and landed half a kilometre further down the valley. A heavy-duty crawler, towing a flatbed trailer with some lifting equipment, which had been parked not far away from where the spacecraft had landed, began trundling towards it, churning up a dust cloud in its wake. She could just about hear the dull whine of the crawler's electric engine.

She realised that they were carrying out a series of tests.

Another announcement came over the crackling loudspeaker, and again she was unable to make out what was being said. This time, however, the figures on the observation stand were looking not at the sky but directly at the launch pad. She pointed her monocular towards it.

The first thing she noticed was a few steam-like puffs of vapour and, as the propulsion nozzles fired up, an explosion of orange black-fringed flames, and then a deafening thunder. Then suddenly there was fire everywhere, accompanied by a series of loud, thunder-like crashes, and the whole of the launchpad was subsumed in a sea of flames that became a roaring fireball. The sound echoed across the valley, and the whole structure – missile-rocket and launch gantry – came crashing down, ejecting a lethal deluge of debris in every direction. All she could just about make out

through the smoke and dust that was engulfing everything, including the observation stand, were people running all over the place, panicking.

‘I’ve come straight from the aerodrome,’ Quastimodo said. She looked tired. Her dark purple hair and waxed anorak were dripping wet.

‘You managed to make landfall? In this?’ Dianovitch indicated the rain falling in sheaths on the Tesla-Schopenhauer Boulevard outside his office window. The storm had been raging since midnight.

‘Just about,’ she said, hanging up her anorak.

The journey back to Polærisgradt had taken nearly two weeks.

‘Tea? I’ve got some invigorating Benedictine Green fresh off the windjammer from Port Teanegri.’

She helped herself to a chair.

‘Your report was rather brief,’ Dianovitch continued, filling two bowls with the spice-scented tea from the samovar.

She had radio-teleprinted a brief coded report to him from the Impæriyan Embassy immediately after she had returned to Roma Nova. Coding it had been a security risk in itself, an indication to any prying eyes that something was amiss, but unavoidable; though it was unlikely that she had been under surveillance.

‘Brevity is sometimes necessary.’

He handed her a bowl of the steaming Benedictine Green.

‘But now we have all the time in the world and no potential prying eyes. It’s best piping hot.’

He returned to his chair behind his file-strewn desk.

She described how she had found out about the Teilhardian research facility.

‘So our secret agent in Roma Nova was helpful?’

‘Very.’

‘It’s a neo-ancient airfield located in a remote valley in the

southern borderlands. With several of those indestructible bomb shelters.'

As she told him what had happened, every now and again he took shorthand notes in a large notebook.

'I'm surprised anyone survived,' she said finally. 'Hoffmann was seen in Roma Nova several days later. Or so Polkableu informed me the day before I left.'

'And Wallace? And their two little helpers?'

'No sign of them,' she said. 'But that does not mean ...' She left the sentence uncompleted.

Dianovitch decided not to think what that might mean. There was no point in coming to premature and unnecessary conclusions.

'Tell me more about this missile-rocket,' he said.

'Very early German-Russk technology. My guess, or rather considered assessment, is that the Teilhardians constructed the main body of the missile-rocket, and Wallace and Hoffmann supplied the hydrogen-oxygen propulsion engines and some other parts. Which they must have sourced from some Antiquities Bureau storage facility. Equipment that's probably not too difficult to recondition, I should imagine, if one knows what one is doing. Which, if anyone would, Wallace would. But ... things do go wrong.'

Dianovitch mulled this over for a moment.

'One is taken aback by their awesome naïveté,' he said.

Quastimodo gave him one of her puzzled looks.

'Thinking that they would not be found out,' he explained.

'What did you do then?'

'I drove non-stop back to Omrushak, by daylight. At that stage keeping out of sight didn't much matter anymore.'

'What do you think they were up to?' he asked. 'Their grand plan?'

'Ultimately, to launch the neo-ancient space vehicle they'd acquired – it's called a shuttlecraft – into orbit. They were apparently testing docking and undocking it with the missile-rocket.'

‘Enlighten me.’

‘The missile-rocket brings the shuttlecraft to a height of about two hundred kilometres. There, the shuttlecraft separates from it and propels itself into orbit using its own magneto-engines, with the missile-rocket itself falling back to Earth and burning up in the atmosphere. It is how the first space missions were done.’

‘You’ll need to go through all this with the technical people.’

‘Of course.’

‘The Teilhardians must have been planning this for years,’ he said, thinking aloud. ‘But why now?’

‘Something to do with the Object?’

That was plausible, he had to admit.

‘You don’t take these Antarkian theories about it being an artefact of an extraterrestrial civilisation seriously, do you?’ he said. ‘It’s all psychological projection. Wishful thinking. Something to which our Afrikan friends are also not immune. Redemption from on high for a dying world. That sort of thing.’

‘There is no evidence of the Antarkians being involved.’

‘And Xanadu Lakshmi?’ he asked.

‘An affair of the heart, I suspect.’

‘Besides, the thing is orbiting Mars,’ he said. ‘Or could one of these shuttlecraft fly to Mars?’

‘It’s probably possible to get to the moon in one.’

He wondered what she was thinking.

‘In any case, the whole unhappy affair is a serious breach of the Concordat,’ she added, no doubt wondering what he was thinking too.



Xanadu and Hoffmann were untypically silent as they took the monorail to the Roma Nova aerodrome, which was a quarter of an hour from the city centre. The new-looking carriage was half-empty and the windows open, but even so, the air was oppressive. The lead-grey, low-hanging clouds had been threatening rain for days. It had been like that since the funerary

rites, though both those days had been unusually and mockingly bright, blue-skied, and searingly hot.

They reached the aerodrome and alighted.

The *Giordano Bruno* was floating motionlessly over the airfield. The Afrikan Interpolar had seen three-quarters of a century of service; its envelope was a patchwork of faded and freshly painted dull greens. It was due to depart for Antarkia in about three hours. The airfield was a parched expanse of pale yellow grass and clumps of the desiccated thistles that thrived in the arid conditions.

The administration building resembled a warehouse with some Islamo-Baroque features added in a half-hearted attempt to make it look like something more imposing. The boarding registration desk was not open yet. Hoffmann suggested they wait in the shaded waiting area where there was a kiosk selling food and drinks. They purchased two bowls of chilli-flavoured coffee and found a table.

‘I shall miss you,’ Xanadu said.

Hoffmann smiled.

‘We will meet again,’ she said.

Xanadu did not contradict her. Perhaps. Life was unpredictable.

The thought of things ending made her think again of the funerary rites, though she believed, intellectually at least, that in the larger, cosmic scheme nothing really did end. The central event of the rite for the dead Teilhardians had been a nocturnal requiem mass ordinary, celebrated by the light of a cloud-shrouded moon and dozens of wax candles in glass vases placed on the surrounding rocks and in a rocky hollow near the bunker. The weather had been breezeless and still. Sébastienne, who had escaped with only a slight flesh wound, officiated. Neither Hamlet Kemale nor Aggarwal Gustine had been present. Both of them, mercifully uninjured, had left hurriedly for Roma Nova the day after the disaster. It not being a mass extasia, Xanadu had been invited to partake in the sacrament and had supped from the chalice of heavy red Irlandia wine and eaten of the

unleavened millet bread. The liturgy had been in ancient Greek so she had understood nothing of it; the chants, sung in languages she did not recognise, she'd found eerily comforting. Hoffmann had later said she simply found the whole affair 'grim'. Then, a few days later, there had been the journey to Port Teanegri and the sea burial of the two Impæriyans who had perished in the disaster.

She had never been able to decipher the Impæriyan attitude to death. Their sea burials were perfunctory, and the wish 'not to be mourned or commemorated, but recollected occasionally and in tranquillity' was a standard phrase in Impæriyan testaments. Strange in a society that was often given to excessive ceremoniousness. Yet their Nights of the Dead had a forlorn eeriness about them. But this was sudden death, death without preparation, without experiencing the Ataraxic Vision, she'd thought as the black-shrouded bodies of the dead Teilhardians were lowered into their separate graves in the stony earth ... Though she knew that the Afrikans did have some type of death preparatory rite, Impæriyans had none. Afrikans consigned their dead to the depths of the earth, Impæriyans to the depths of the sea, both a banishing ... as opposed to offering them to the heavens and the creatures of the air. But then, Afrikans and Impæriyans found the exposure of corpses to be consumed by carrion petrels abhorrent, imagining rotting corpses being ghoulishly pecked apart over weeks, when in fact it was over in a couple of hours, with nothing but clean bones remaining.

'So when do you plan to journey to Polærisgradt?' Xanadu asked.

Hoffmann intended to return to Impæriya – not now, but eventually. And she had pointedly said that she needed to do so alone. There had been little need for her to explain why; she wanted to do what she had to do unencumbered by emotional complications. Xanadu had suggested that there was always Antarkia, that she would not be the first to go to ground in one of the scattered southern settlements. Predictably, Hoffmann had brushed the idea aside. Her Impæriyan sense of the tragic,

Xanadu supposed, would not allow her any other course of action: one struggled until things became futile, accepted one's impotence, and finally admitted defeat and faced the consequences.

'Soon. But Kemale is of the opinion that it might be more politic if he returned there before I do.'

A few minutes later there was an announcement in heavily accented Ænglisk over the loudspeakers asking all passengers for the *Giordano Bruno* to report for pre-boarding formalities.

'It's time,' Xanadu said.

Hoffmann accompanied her to the Interpolar boarding registration desk, carrying one of her rucksacks. There was no queue.

The aerodrome official, a young and overweight young man in a purple and green robe, took Hoffmann's flight permit and checked it against what Xanadu presumed was the passenger list. Then, he phoned somebody and exchanged a few words with whoever was at the other end of the line. They couldn't hear what he was saying.

'I'm afraid there seems to have been some mix-up,' he said when he returned.



Dianovitch had a habit of driving up to a spot in the hills overlooking Polærisgradt whenever he needed to think undistracted. The panoramic view of the city below and the Arctic Sea beyond helped him to put things into perspective. Looking down on the streets and buildings of the Impæriyan capital, he was reminded of his political responsibilities as Executant-Clerk of the Guardianship Secretariat.

He parked the crawler – the fifty-year-old vehicle had been repaired so many times that few of the original components remained – switched off the headlamps, and took off his goggles and gloves. The sun was setting and the clouds on the western horizon were tinged grey-yellow, and there was the familiar smell of sea salt and pine in the winter air. He had made sure to

wear an extra woollen garment under his waxed anorak.

He still had not received any definitive information from Polkableu regarding Wallace and the two other engineers who had accompanied them to Afrika Minor, but Polkableu had confirmed that Hoffman was still in Roma Nova. He was sure that she intended to return to Impæriya, or attempt to. Though part of him wished that she would not. In any case, the Sovranty would be unlikely to be overjoyed to host her on an open-ended basis. Her companion, Xanadu Lakshmi, could most probably easily enough arrange to disappear in some remote Antarkian commune. But he did not think it was in Hoffmann's nature to abscond. He did not relish confrontations, despite his reputation as a man who did not shy away from a degree of ruthlessness when doing what was necessary. If Wallace and the other engineers had not survived, which was looking increasingly likely, there was now no possibility of dealing with the whole thing through diplomatic channels, via a quiet but unyielding chat with the Nuncio – who was still in absentia.

The whole blundering and insane affair threatened biospheric harmony. The Afrikans, of all people, the Mothers of the Concordat, had contravened one of its key terms. And they had evidently been doing so for years. Most probably since they had discovered the neo-ancient spacecraft that Quastimodo had described. Ziddhartha Platonow's announcement of the Indraghosh Observatory's discovery of the Object must have given a fresh impetus to their plans. Though Kemale was generally not given to wild fancies, there was no doubt that it was he who had enlisted Hoffmann and Wallace; and with no great difficulty, it appeared. He was not a man to be underestimated, despite the witty, bemused public persona and faux naïveté he so meticulously cultivated.

He ignited his vaporiser and inhaled a breath of therak, savouring the sense of calm and clarity it induced. The city lights were being switched on, one by one, in anticipation of the long polar night.

Humankind had had the opportunity to become an

interplanetary species but had gambled away that opportunity, let it blow away like, to quote Arkardsky, *cosmic chaff upon the solar wind*. For two million years, hominids had walked the Earth, scarcely making a mark upon the biosphere. Two hundred thousand years ago, homo sapiens had appeared, still barely making a mark ... until, within the geological blink of an eye, over the last ten thousand years, humankind had transformed the planet. Laying waste to the forests. Crisscrossing the continents with grids of railway lines, asphalt highways, power lines, and the oceans with boolean data cables. The coral reefs had perished. Dozens of concrete megacities had sprouted like mushrooms all over the planet, which at night, ablaze with electric light, had banished the stars from view. The skies had filled with aircraft and tens of thousands of satellites. And then, the Landauer Shield had been built ... Deranged crimes against humankind and other animal species had been committed. He remembered once seeing a film, taken from the air, of an eight-lane highway, packed with motor vehicles, none of them moving, stretching towards a city whose towers seemed to reach the clouds. The capitalocracies – with their social classes, castes, and peculiar concept of human races – had lasted far longer than many had believed they would. And then, suddenly: the Twilight, and it was all over. No civilisation would ever again arise that could even dream of reaching those giddy technological heights. The planetary resources had been used up, as if they had been in infinite supply, in a frenzied fantasy that the biosphere could be transformed into a sterile technosphere and could still support the complexity of life. In perhaps as little as a few hundred years all that might remain of the relentlessly disintegrating Landauer Shield would be its skeletal, web-like frame. Eventually, all that would remain of the Anthropocene would be a thin radioactive layer of microplastics and toxic chemicals in the fossil record, similar to the layer of melted sand and ash from when that asteroid impacted sixty million years ago.

He inhaled another breath of therak. Polærisgradt looked like

a fragile bubble of warmth and light, a refuge from the unknowns that lurked in the shadows of the night.

Extinction was the eventual fate of all species. But civilised human life might still have a millennium before it, or longer – generations of human lives lived, each with their tragic personal meanings. The dissident factions believed that by recklessly shaking everything up, some all-redeeming fruit would fall from the tree of history. A delusion. To persevere, humankind needed to be confident that the world that lay ahead would be similar to the present world. That required only changing those things which it was necessary to change. The builders of the ancient Christian cathedrals knew they would not see their work completed, but they had no doubt that the world of their descendants would be like the world they lived in. Without that sense of certainty, they could not have persevered from one generation to the next. And yet they too had believed that their world, eventually, would end.

Had it been a mistake, he wondered, to ask Hoffmann to liaise between Ziddhartha Platonow and the Biosphere Commission? But then, she would have met Hamlet Kemale several times before that. In any case, it hardly mattered now. His intention had been to create a modicum of mutual trust between them, or at least avoid an atmosphere of all-encompassing suspicions, in the hope that he could get a more exact feeling for what was happening in dissident circles. Had he too acted with naïveté? Perhaps. Had Hoffman realised that had been his intention? Most likely. But she had acted with far greater naïveté, and would now face the consequences. He would be duty-bound to demand her internal banishment and that of any others who had been involved. It was not a prospect that gave him any pleasure. Judicial procedures were unpleasant affairs and rarely revealed the real truth of things. And that would hardly be the end of it.

‘I always did have some doubts about the wisdom of this whole endeavour, Your Holiness,’ Kemale said, addressing Theresa directly. ‘I did express some reservations. In hindsight perhaps too mildly ...’

Which was disingenuous of him, Gustine thought, to say the least. He’d asked a few harmless and open-ended questions. That had been the extent of his ‘reservations’.

They were meeting in one of the Kuria committee rooms on the top floor of the Old Zamsung Palace.

‘We have no reason to believe that the Bureaucracy has learned of what has happened,’ Abantu said. He was sitting near the door. Everyone else was seated round the large oval hardwood table, including Theresa. This was not an occasion for formalities.

‘We have no reason to believe that the Bureaucracy has not learned of what has happened,’ Theresa said.

Kemale had never seen her so determined, so focused – a sign that perhaps she would not merely be a figurehead pontifex – or angry. Angry at them all; which, given the circumstances, was understandable.

‘We are all complicit in this,’ she said, ‘and I do not except myself. We can apportion degrees of blame to one another but that will serve no purpose. And yes, I am angry, but at myself most of all. There shall be no scapegoats.’

Gustine breathed an inward sigh of relief.

‘The Impæriyans were buried at sea,’ Hiroshima Linn said, addressing Theresa. She was in uniform. ‘According to Impæriyan custom. In a secluded inlet up the coast from Port Teanegri. Apart from my officers the only persons present were the Impæriyan Karthika Hoffman and the Antarkian Xanadu Lakshmi.’

‘The Antarkian woman departed on the *Giordano Bruno* yesterday,’ Gustine said.

‘I’m afraid she didn’t,’ Hiroshima Linn said. ‘I have taken the liberty of suspending her flight pass. And Karthika Hoffmann’s.’

‘Are Hoffmann and Xanadu Lakshmi joined?’ Theresa asked.

‘So I believe,’ Kemale said.

‘Yet they are to go their separate ways?’

‘Their ways are not Afrikan ways. Antarkian erotic practices are very often almost semi-religious – or rather they believe sex can be a psycho-mystical discipline. It can be seen in their art. The Impæriyan attitude, on the other hand, is—’

‘How fascinating!’ Theresa snapped.

Kemale shrugged, as if to say he too was sometimes mystified by foreign ways, but took care to do so with exaggerated politeness.

Gustine shook his head inwardly, wondering what on earth the man was thinking. Nobody said anything for a few moments. The hum of the rotating ceiling fans filled the silence.

‘We cannot prevent them indefinitely from travelling,’ Linn said. ‘Legally, that is.’

‘Where are they now?’ Kemale asked her.

‘I’ve arranged accommodation, an apartment,’ Linn said.

‘Then that particular problem seems somewhat temporarily in hand,’ Therese said, her anger momentarily laid aside. She had obviously decided to focus on possible solutions, if there were any, to the ‘diplomatic disaster’, as she had called it earlier, they found themselves in. ‘Please, Nuncio, continue. We are all ears.’

Kemale nodded respectfully.

‘The Concordat has worked because of mutual trust. That we, who conceived it and persuaded Impæriyan Bureaucracy and the Antarkian Commonwealths to commit themselves to it, should—’

‘Your point, Nuncio?’ Theresa said quietly, her impatience palpable.

‘My apologies, Your Holiness, of course. The important thing now is what action the Bureaucracy will take. One man will largely determine that.’

Kemale opened the cardboard folder in front of him, extracted a black-and-white photograph and passed it round the table. It

was of a short-haired, bookish-looking man in his fifties, wearing wire-framed spectacles.

‘Liam Dianovitch,’ he said. ‘The Executant-Clerk of the Impæriyan Guardianship Secretariat. If the Bureaucracy has anything resembling a chief of police, it is he. It is not a case of what he says automatically goes, but his recommendations carry considerable weight in Bureaucracy circles. He is a zealous protector of the hegemonic position of the conservatists. When this all gets out, as it surely will, Impæriyan trust in our commitment to the Concordat will be shattered. In the normal course of things, the wheels of the Impæriyan Bureaucracy grind slowly, but this is not one of those times. When the situation requires it, the Guardianship is capable of acting quickly and decisively. The question is what course of action will he recommend the Bureaucracy to permit him to take.’

‘The Black Bread of Life,’ Miasignora Khan said. ‘The world depends on therak, on our supplying it—’

‘Even a hint,’ Kemale said, interrupting her, ‘of us even considering using the supply of therak as a bargaining chip would lead to consequences that do not bear consideration.’

Despite the ceiling fans, the room had by now become unbearably stuffy. Gustine announced that he was going to open the two large balcony windows.

‘Please,’ Theresa said.

The Kuria Chamber filled with the sounds of the city streets, of Roma Nova going about its mundane daily affairs.

‘Is it possible to bury this whole inconvenience,’ Miasignora Khan asked, ‘so deeply that no one will ever learn about it?’

‘Inconvenience!’ Kemale repeated, trying but failing not to sound derisive.

‘We could destroy everything,’ Khan continued. ‘Every record, every artefact, everything that has anything to do with it, including the shuttlecraft.’

‘Destroy the shuttlecraft!’ Gustine exclaimed, but controlled himself, barely.

However, judging by the general reaction to the suggestion,

or rather lack of a reaction, it was clear that if that was what was deemed necessary, there would be near-unanimous agreement to doing it. But Hiroshima Linn's face remained studiously expressionless, transparently so. He doubted that she would be happy with that course of action, or he hoped she wouldn't. In any case, he decided that now was not the time to raise objections.

'Constructing an alternative account of their deaths might not be impossible,' Khan continued. 'Of course, it would need to be plausible.'

'Dead bodies have a habit of not disappearing quietly,' Kemale said. 'Resurrecting Wallace and the other two Impæriyans from the dead is hardly an option. And Karthika Hoffmann would need to cooperate.'

'As would Xanadu Lakshmi,' Hiroshima Linn added.

'Nuncio?' Theresa said, indicating to him to continue.

Kemale cleared his throat.

'Even if, Miasignora, what you suggest were remotely possible,' he continued, 'the consequences of attempting to, as you put it, bury this whole inconvenience, and then being discovered to have attempted to have done so ... I don't think there is any need for me to describe what those might be. Besides, we don't know what Dianovitch or the Bureaucracy knows. Perhaps it's very little. Perhaps it's a lot. But I doubt that they know nothing.'

SIX MONTHS LATER

17

Kemale knew it was not going to be one of their cosy little chats when he read Liam Dianovitch's summons to an early afternoon 'consultation' in one of the committee rooms of the House of the States-General Doma.

When he got there, one of Dianovitch's underlings was waiting for him in the north wing reception hall: a purple-haired woman, muscular, in a shabby, charcoal-grey Impæriyan semi-uniform. She introduced herself but he didn't catch the name; it was something beginning with 'Quas'. He must have been more nervous than he realised; he usually had no trouble with Impæriyan names. But he felt too embarrassed to ask her to repeat it. And he had a vague feeling that he had seen her somewhere previously, though he had no idea where or when.

'Executant-Clerk Dianovitch is expecting you, Nuncio,' she said.

They made their way silently down a long echoing corridor. The grey walls and rows of ivy-green wooden doors looked as if they had last received a fresh coat of paint a century ago, which was likely the case. When they reached their destination – Committee Room 236 – she knocked casually, opened the door without waiting for a reply, and then stepped aside to let him enter. She did not follow him in.

Dianovitch was alone, sitting at a large, round pinewood table, rather the worse for age, an unopened folder in front of him. Kemale bowed perfunctorily. He was never quite certain when Impæriyan etiquette demanded the gesture but decided to err on the side of caution.

Dianovitch merely nodded in acknowledgement.

‘Tea?’ he suggested. There was a samovar on a corner table.

‘Never say no to a bowl of good tea,’ Kemale replied, attempting camaraderie, but Dianovitch was clearly unimpressed, and his demeanour betrayed nothing of what he might be thinking or what he intended to say.

There was a clear view of the Harmonia Triumphant statue through the window. Kemale had always thought that the monument incorporated the worst Impæriyan predilections for the contrived. The art of most cultures was usually a mixture of the profoundly symbolic and a matter of taste; but with Impæriyans — though the Night of the Dead was an exception — he had always got the impression that nearly everything was a matter of taste, and with public works of art and official architecture too often of bad taste, though the statue’s size was impressive.

Dianovitch handed him a bowl of steaming tea, for once refraining from commenting on its provenance. Kemale had decided that he would resist the temptation to speak first.

‘Do you think it is necessary for me to relate to you everything that we know?’ Dianovitch said.

‘There is no need,’ Kemale said.

‘Good. It would take some time. So—’

‘We cannot possibly know what information the Impæriyan Guardianship Secretariat may or may not possess,’ Kemale found himself saying, despite his resolution to let Dianovitch do most of the talking. ‘My masters in Roma Nova have decided that the wisest course of action is to assume’ — he paused for a moment — ‘the worst.’

Dianovitch smiled — but it was a smile devoid of glee, strangely empathic even.

‘Wise,’ he said. ‘All things considered.’

‘This is an extraordinarily ... difficult situation,’ Kemale said.

‘Many in the Bureaucracy believe that the damage is irreparable.’

‘And your personal view?’ Kemale asked.

‘By nature, philosophically, I am a fatalist ... but also a

realist.'

Kemale had expected anger, a demand for an explanation, but Dianovitch had obviously decided that such theatrics were unnecessary.

'It is a breach of trust that has put everything into question,' Dianovitch continued. 'The consequences of this affair are disastrous for the relationship between the Impæriya and the Sovranty.'

'The Kuria is sorrowfully aware of that.'

'And have no doubt engaged in some serious deliberations as to how the situation might be ... mitigated ... If that's the word?'

Kemale could hear footsteps echoing in the corridor, somebody doubtlessly making their way to one of the innumerable Bureaucracy offices housed in the labyrinthine building.

'Naturally,' Dianovitch added, 'I, we, are most curious as to the nature of those deliberations and what, if anything, your masters in Roma Nova propose.'

Kemale had turned over in his mind an infinity of times how he was going to respond to that inevitable question, and convey to their greatest advantage, if that was possible, the instructions the Kuria had given him.

'Unconditional surrender,' he said. The phrase, stemming from neo-ancient times, rang contrived but it was apt. He had decided that Dianovitch would not expect that there would be no attempt to offer any extenuating circumstances. Admitting absolute culpability was the only thing to do. 'We make no pleas, make no excuses.'

A slow look of surprise appeared on Dianovitch's face. But only for a moment.

'We were in grave error and we admit that unequivocally,' Kemale continued. 'We are willing to comply with any demands that the Impæriyan Bureaucracy feels obliged to make. In the sincere hope that our admission of culpability will, in some measure, assist in restoring the conditions of mutual trust

that have existed between us for centuries.’

Again Dianovitch remained silent for a while, his face neither betraying surprise nor approval. Kemale was, however, certain that he was surprised. Eventually, he spoke.

‘Our first demand is that you provide the Impæriyan Guardianship Secretariat with a full and pedantically accurate report on everything concerning, in any manner whatsoever, this affair.’

‘It will be done,’ Kemale said.

‘We know enough to recognise any untruths and half-truths. I suggest you make that clear to your masters.’

‘Of course,’ Kemale said.

‘The shuttlecraft are to be either handed over into the custody of’ – for a moment Kemale thought he was going to say the Antiquities Bureau, but plans for a purge of the upper echelons of that organisation were most probably being drawn up, if not already being implemented – ‘a special commission being set up by the Guardianship Secretariat, and with which you will unconditionally and proactively cooperate in all matters. Or, alternatively, if we so decide, the craft, including all associated equipment specified by us will be destroyed at their present location under our supervision. We have not yet come to a decision as to which would be preferable.’

Kemale remained carefully silent.

‘Furthermore, the Holy See is to release no information pertaining to this affair or make any public statements even alluding to it. If there are any public statements to be made, the Guardianship Secretariat shall make them, unless we decide that it would be more politic for the Holy See to do so. And, in that case, the content and nature of any announcements to be made will be decided by the Guardianship Secretariat.’

Kemale made to agree but Dianovitch raised his hand to indicate that he had not finished. The uncharacteristic vulgarity of the gesture took Kemale aback.

‘In addition,’ he continued, ‘we shall require full information on the location of the manna-plant zones and on the manna-

therak transmutation process.'

Not an entirely unforeseeable demand, Kemale thought. The Bureaucracy had never been entirely happy with the secrecy surrounding the location of the manna-plant zones or the transmutation process. However, in truth, revealing that information would only be a gesture. Impæriya was hardly in a position, even if it desired to do so, to attempt to physically take possession – in the manner of some neo-ancient army of occupation – of the manna-plant zones and the transmutation facilities.

'Which brings us to another, perhaps even more delicate, matter,' Dianovitch went on, extracting a ceramic flask from a drawer in his desk. 'Some schnapps? In your tea?'

Kemale declined.

Dianovitch poured some of the strong-smelling alcohol into his tea.

'A more delicate matter?' Kemale repeated.

'Karthika Hoffmann,' Dianovitch said.

'The suspension of her flight pass can be lifted anytime. We thought ...' Kemale was going to explain what their thinking was behind detaining her in Roma Nova, but thought better of it. What would be the point? 'She can return to Polærisgrad on the next available—'

'I want her to disappear,' Dianovitch said, cutting him short. 'As to how ... That I shall leave it to your good selves ... Any arrangements you shall suggest being subject to my approval.'

'To disappear?' Kemale repeated, taken aback.

'I am not suggesting murder. We are not barbarians. A prolonged sojourn in an isolated – and secure, very secure – monastery is what I had in mind.' He had not said 'we'; but most likely that was just a slip of the tongue. 'I'm sure your Teilhardian Order possesses something suitable. The fact that she is not officially – from our point of view in any case – in Afrika Minor is serendipitous. I'm sure any reference to her can be carefully expunged from any official records you may have.'

Now Kemale was surprised; he hoped he did not show it.

Why, he wondered, did Dianovitch want Afrika Minor to engage in that sort of duplicity on his behalf? Or even trust them to do it? The Guardianship Secretariat must surely have enough 'secure' and 'isolated' facilities of their own scattered around the Impæriyan lands. He wondered if there had been some recent change in the finely balanced power structure within the Bureaucracy that would make Karthika Hoffmann's presence in Impæriya a threat even if she were to be interned somewhere there. Or was it something else? And if that *I* instead of a *we* had not been a slip of the tongue?

'With the Antarkian Xanadu Lakshmi to keep her company,' Dianovitch added.

'For how long?' Kemale asked.

'Until such time the Secretariat considers her presence here to be no longer ...' Dianovitch paused for a moment, looking for an appropriate word. '... awkward.'

'I will convey your requests to Roma Nova,' Kemale said. 'I do not foresee any major obstacles to our complying with them.' Which humiliating though it was, was the truth, at least in part. Some would argue against it – he could not imagine Astronomer Aggarwal Gustine relishing parting with his shuttlecraft – but it would be very much a minority view. But consigning Hoffmann and Xanadu Lakshmi without their consent to some remote Teilhardian fastness was another matter. But now was not the time to raise that issue.

Dianovitch pushed aside the folder on the table in front of him, which he had not opened, an indication that their meeting had formally come to an end.

'Of course,' he said as Kemale was about to take his leave, 'this whole thing will come out – in some unpredictably garbled manner, no doubt – sometime and in some way or another. Things always do. But in twenty years from now, who will care too much about what happened There will be rumours. There always are. But such is the way of things.'

It was still early afternoon as Kemale left the building, but the winter darkness had already descended and the lights of

Polærisgradt had been switched on. One thought one would eventually become acclimatised to the dark polar winters and the long bright days of the polar summers, but one never did.

He looked at the time on the clock tower of the House of the States-General Doma. It was just coming up to fifteen o'clock. It had been months since he'd last immersed. But now he felt the need, the need to escape at least for a while from thinking about the mess of everything that had occurred and would occur until it resolved itself, as everything eventually did, one way or another. He didn't have any phan-chips back at the bungalow. But the Raykjavikan Yrælo Lee always had a supply. The monorail would take about an hour to get him to her place in the suburbs.

It was pure luck that Karthika Hoffmann was alone when Gustine went to the apartment she and Xanadu Lakshmi had been allocated. Waiting outside the building, a nondescript apartment house on one of the canals, built sometime at the beginning of the last century – until Xanadu Lakshmi had left on some errand or other had hardly been an option; he could have been there for hours, days even. There was also the very distinct possibility that a discreet eye was being kept on the building by the Kohors Helvetika, not that he had noticed anything amiss. Linn had not said that she had ordered surveillance; but then, he hadn't asked. And there were others who might be curious, though any watchers would be unlikely to be lounging about in full view on the canal bank. They would be in one of the buildings opposite, or in one of the moored-up barges, somewhere that gave them a good view of the apartment building's entrance. But as serendipity would have it, when he got there – he had come on foot; the steamer would have been too conspicuous – Xanadu Lakshmi was actually leaving the building. By another unlikely stroke of luck, she had not headed in his direction, but towards the market, which was ten minutes distant. He estimated that he could count on at least half an hour alone with Hoffmann. There and back with some time for purchases was about that. Needless to say, Hoffman had been surprised to see him; and not happy to. Predictably, she had suspected he'd had a hand in the suspension of their flight passes.

'I had nothing to do with that,' he said. Which was not entirely truthful; he had said nothing when it had been discussed.

'If that's what you say,' she said sceptically.

She offered him tea. The apartment felt larger than in fact it

was. The effect of it being devoid of personal clutter, he supposed. They had only partially unpacked.

‘I’m afraid your situation has become considerably more grave,’ he said.

‘Yes? And how?’

‘I have received a message from Nuncio Hamlet Kemale in Polærisgradt. The Bureaucracy is demanding, among other things, that you and Xanadu Lakshmi be detained here indefinitely ... under conditions of secure internal banishment. Until such time as Impæriya sees fit to order your release.’

‘And you agreed?’

She seemed more angry than surprised.

‘If you mean me personally, no. But if you mean our executive authorities—’

‘The Kuria?’

‘Yes.’

‘With whom you are not without some influence.’

‘My influence is less than negligible right now. But a final decision has not yet been made.’

‘Yet? And when will they make a decision?’

‘Within days. If not sooner. And I have very little doubt that the Impæriyan request will be agreed to. There is little choice—’

‘There is no need to explain. I think I understand the situation quite well.’

‘But why?’ he asked her, deciding to be as direct as she was being. There were only two plausible reasons he could think of why the Impæriyans wanted her banished to some borderland hermitage. Legal repercussions – the States were known for their litigiousness. Or her presence in Impæriya, even if she was not free to move about or communicate freely, would be a serious threat to the conservatist hegemony, whose ‘zealous protector’, Kemale had said, was this Liam Dianovitch ... If the latter was the case, there was some hope.

‘Why what?’

‘Why does the Bureaucracy want you kept here? I cannot imagine there is a lack of remote locations in Impæriya where

an opponent – if that's the word – of the Bureaucracy could be detained incommunicado for a long time.'

'Not legally,' she said. 'But yes, you imagine correctly.'

He was afraid that at any moment she was going to ask him why exactly he had just told her what he had told her, but she didn't.

'So why?' he asked.

'The Bureaucracy is facing a crisis. This affair could be the proverbial straw—'

'... that breaks the camel's back. If it became generally known.'

'There are no certainties in such matters,' she said. 'I am not a person without influence. The situation is fluid, more fragile than it has ever been, perhaps not far from a cascade threshold. The Bureaucracy will survive, but it needs to change.'

'Change to what?'

She ignored his question.

'Who in the Guardianship Secretariat has Hamlet Kemale been negotiating with?' she asked.

'With the Executant-Clerk directly.'

'Liam Dianovitch?'

'Yes. You know him, I presume. Well?'

'Well enough. He's no fool.'

'He has also demanded the destruction of the shuttlecraft.'

She was silent for a few moments.

'To which the Kuria has acquiesced?'

'Yes,' he said.

'The destruction of the shuttlecraft,' she added, 'is inevitable if I am held prisoner here.'

It was the answer he had hoped for ... But just then he heard the apartment door opening and then closing again. Xanadu Lakshmi had returned, rescuing him from having to answer any awkward questions Hoffmann might pose, but also preventing him from learning more.

The waves rolling in from the sea sounded like radio static, the background ether-hum of a cosmos oblivious to the individual fates of all the creatures it had brought forth. The sun, a yellow-orange sphere behind the misty clouds, was now each day lingering longer and longer on its low path across the sky. And the nights were growing shorter; soon they would be little more than midnight dusks. The world was renewing itself. While he, Ziddhartha Platonow, was beginning to cease, to revert to the ethereal atoms of which he was made.

At first he had barely noticed it, but now, after a month, he could no longer deny it. He had lost that sharp desire for the therak that had accompanied him all his adult life. He had not stopped taking it, but he was indulging out of habit, not out of need, and its neuroenhancement affect had diminished almost to being non-existent. Which meant, as certainly as the tides ebbed and flowed, that the neurostimulant prophylactic was no longer working.

One grew so attached to one's physical existence as one passed through matter. Was letting go easier for the Jaindharmans, he wondered, who spent their lives practising the Way of Disentanglement, secluded from the world and its distractions in their hermitages on the edge of the Great Ice Sheet?

He needed to calm himself, to remember that the cosmos was not merely a pointless, perishable effusion of a mindless something.

The sand was wet and compact underfoot; but its solidity, its materiality, had become otherworldly. Similar to what, he imagined, the neo-ancient immersers must have experienced in their hyper-phantomatic worlds. A flock of sandpipers rose into the air as he approached it. He stopped and watched them land again further up the beach, and walked on. He needed to walk, to get a grip on the maelstrom of thoughts that were welling up from the abyss that had opened up within his psyche.

Once, many, many years ago, while trekking along the Cape Amerikaz mangrove coast, he had caught Karpathian fever and

spent a long, agonising and delirious night alone in one of the stone shelters along the route. A freak occurrence: GOB-E1-IN ticks were usually found only in the Wilderness, mainly in the ruins of neo-ancient cities. His recollections of the night were now little more than a disjointed sequence of feverish impressions. But one memory remained: descending, falling deep into a realm of formless ghostly images of the souls of the countless legions of the dead. He had been convinced he was going to die, had half-accepted it, partly lost the fear of it; and might have done so had a group of wanderers had not found him and, luckily, possessed an anti-GOB-E1-IN kit.

A flock of seagulls was circling above something in the water, their shrieks piercing the salty air. On the headland in the distance, there was a row of aero-harvesters, their blades slowly rotating in the sea breeze.

All he ever retained from the Winter Solstice Mystery Rites were foggily remembered glimpses of other dimensions of being, but never any real understanding. The Ataraxic Vision was supposed to shatter the illusion of time and banish fear of death, but only if one had finally and fully accepted the inevitability of one's death as a real, concrete thing, and not some abstract future occurrence.

The foamy incoming seawater was rolling over some sword razor clam shells, submerging them for a moment, retreating, and then rolling over them again. The creatures had fascinated him as a child. The species was probably several hundreds of millions of years old. But now, the flat oblong shape of the shells reminded him of the Object. The chapter on the Messenger Legend in Sebastopol Dhzava's *Memories of the Cosmonautic Epoch* had revealed little he had not already been half-familiar with. He had known about the interstellar object that had given rise to the legend; but not about the speculative monograph written by that late neo-ancient astronomer contemporaneous with the event, which documented the reasons for thinking the phenomenon might be an artefact of an extraterrestrial civilisation. Those reasons, principally, were: its

variable light signature, indicating that it was long, razor-thin, oblong-shaped and large-surfaced, rotating erratically about its centre of gravity; and its acceleration as it exited the solar system. All of which were consistent with it being a large, kite-like surface, a solar or photon sail, propelled by radiation pressure. Initially it would have been set into motion by radiation pressure emitted by the star it had originated from and, as it exited the solar system, by radiation pressure from the sun. Its erratic rotation could be accounted for by it having been damaged at some point during its interstellar journeying. In some ways it was similar to the Object from the Stars but there were also significant differences. Later, a painfully literal-minded and long-lived semi-religious sect had come into being around the event, which, like most late neo-ancient sects, lacked all sense of the mythic, the metaphoric or the symbolic.

Xanadu had not said when she intended to return. Perhaps he should write and tell her ... but then, he reminded himself half-heartedly, he was not a statistic; some lived for years after the therak had stopped working. He looked out over the ocean again, towards the north, and wondered with a heavy heart what might be going on out there in the world beyond the horizon.

Then – the desire just came to him – he began to undress, to bare his aged body to the elements. When he was naked, he stood and looked at the sun, shining through the misty clouds, and let its heat slowly warm him, and then walked over the wet sand towards the cold sea.



As Gustine headed towards the Kohors Helvetika Barracks several kilometres north of Roma Nova in his dilapidated steamer, the sky was still grey and featureless. There was something especially depressing about a dusty landscape under a heavy, clouded sky refusing to rain.

That the Impæriyan Bureaucracy would demand the destruction of the shuttlecraft had been entirely foreseeable. He had seen no way of plausibly objecting to what Kemale had

described to the Kuria as making an offer of ‘unconditional surrender’, and, at least symbolically, throwing themselves at the mercy of Polærisgradt. It had been the only logical course of action if they were not, like Samson in the Temple of Dagon, to bring the whole structure of the planetary order down in ruins.

The shuttlecraft had been the last twenty or more years of his life, the beginning of everything, of the Lemaître Observatory, of all that they had discovered. He had argued with himself for weeks, often into the late hours of the humid nights, trying to convince himself to fatalistically accept their destruction, at times nearly managing to do so. But then, when he’d noticed that the clouds had cleared, he’d wander out into the darkness to walk among the rows of parabolic dish antennae glimmering faintly in the starlight and, monocular in hand, scan the heavens. At such moments, staring into the star-filled cosmos, he realised that he could not accept their destruction. But those were night thoughts. When day came, he would find himself again attempting to convince himself to accept the inevitable. Then word had come from Hamlet Kemale confirming, in no uncertain terms, that the Impæriyans were intent on destroying the shuttlecraft, and he knew finally that he could never accept it.

He turned a bend in the road and the Kohors Helvetika Barracks came into view up ahead: a fenced compound surrounded by a gravel firebreak, containing several rows of adobe bungalows with solar harvesters on their flat roofs, and a wind pump mounted on a trestle tower, its multi-bladed rotor motionless in the humid air. The blue-and-yellow striped barrier pole was down but the gate cabin was unattended. He brought the steamer to a halt, switched off the engine, alighted and pressed the button on the intercom. A crackling male voice answered.

‘I have an appointment with Acting Commander Hiroshima Linn,’ Gustine explained and gave his name.

Thirty seconds later, the voice informed him that Linn would

meet him at the Administration Block.

‘You can’t miss it, just follow the signposts.’

The barrier pole was raised and he drove through. The sandy compound streets were empty, but then it was the hottest time of the day.

He remembered Linn once saying something about the neo-ancients probably knowing in their hearts that their civilisation was doomed. ‘We are not a completely unintelligent species,’ she had said. ‘We achieved dominion over all that moved and grew upon the planet, even over the bacteria and viruses – or thought we did – but not over ourselves.’ He couldn’t recall where they had been. Maybe it had been on that catamaran excursion to that unnamed, semi-submerged city off the Búlúù Coast.

The Administration Block was a row of joined-up bungalows and had been clearly signposted. Linn, dressed in sweat-stained fatigues a size too big for her – but then she was small – was waiting for him on the veranda. Her long black hair was tied back under a blue bandana. He was sure that none of the others had noticed her silent reaction to the suggestion that they offer to destroy the shuttlecraft to placate Impæriya; but on the other hand, neither Abantu, not the Nuncio, nor Theresa herself could be described as being unobservant. He had not spoken to her about it, and what he was about to suggest to her was hardly well thought out. He had little, if any, reason to think she might go along with what he was going to suggest. But desperate situations called for gambles.

Linn made her way across to the steamer to greet him.

‘You can park here,’ she said.

‘This needs to be a private conversation,’ he said as he got out of the steamer. ‘What I have to say must go no further than the two of us. For now anyway.’

‘I thought it might be. But let’s have a bowl of coffee or tea first, and give you an opportunity to wipe the dust off.’

‘I need coffee,’ he said. ‘Is this place usually so deserted?’

‘It’s always like this at the end of the week.’

‘Of course, I forgot.’

Half an hour later they set off on a walk along a wadi beyond the perimeter fence.

‘Does it ever rain here?’ he asked.

This part of the Green Sahara was dotted with valleys that had Wilderness-like microclimates.

‘It’s just the time of year. It’s always like this before the monsoons.’

Several unidentifiable birds of prey, black silhouettes against the dappled grey of the sky, circled, floating on the rising updraughts of hot air.

‘There’s a lot of sand vipers,’ she explained. Then she paused for a moment before adding, ‘This is about the shuttlecraft, I presume.’

‘You have heard?’

‘Yes. The Bureaucracy is demanding their destruction. To which the Kurators will undoubtedly acquiesce.’

He waited for her to tell him in her own words and in her own time what she thought. He had to be sure. It had to be her decision.

‘I will see what I can do,’ she said eventually. ‘Without the shuttles’ – she paused for a moment – ‘we and all who come after us will be merely the caretakers of a world that is gradually turning to dust.’

‘But we will never be able to repair the Shield,’ he said. ‘That is a dream. The Kinvolk may not even survive its disintegration.’

‘Without the shuttlecraft,’ she said, ‘there is not even a dream.’

‘What is all this about?’ Hoffmann shouted at the small woman in oilskins, visible in the headlamps through the rain, when the two burly male ‘priests’ let her out of the steamer. The woman was standing on the strand, her back to the ocean, holding an umbrella. It was clear that whoever she was, she was in charge and had ordered Hoffmann’s abduction.

The ‘priests’ – two muscular men, quietly spoken but most definitely not to be contradicted – had appeared at the door of the apartment two hours earlier. They had timed their visit for when Xanadu had been conveniently out. They had informed her that her presence at the Palatium Apostolicum was required. Minutes later she was sitting in the rear of a Guardia-Helvetika-type steamer, jammed between the two of them, driving through the rain – the monsoon had finally started – along the canal towards Saint Peter and the Magdalene’s. But then the steamer took a turn to the north and the basilica’s illuminated obelisk-minaret was suddenly behind them, and they were heading somewhere else.

‘No harm will come to you,’ one of them said when it was obvious that the Palatium Apostolicum was not their destination. ‘This is in your own interest.’

A moment of panic followed, but she knew that there was nothing she could do. Roma Nova, like Polærisgradt, had its underworld – though the grey trade in Protocol 3 phantomatic micro-simneuralators and phan-chips in Afrika Minor was only a fraction of what it was in Impæriya – but the ‘priests’ were far too professional and competent to belong to a company. But as they drove through the oncoming sheets of rain illuminated by the sodium-yellow beams of the steamer’s headlamps, and left the city behind them, her fear gave way to anger. The countryside was in darkness except for the odd distant light; so

she had no idea as to where they were heading. Eventually, it was only anger she felt. Several times she thought she saw the headlamps of another vehicle following them. Eventually, they had reached the sea and driven onto a rainswept strand.

‘Where am I?’ she shouted, as much to be heard above the racket of the rain falling on the strand and the water as out of rage.

A bolt of silent lighting lit up the horizon and the sea gleamed phosphorescent-black for a second. Long enough for her to make out the silhouette of a small windjammer with its sails furled, riding at anchor a hundred metres from the shore.

‘You are being released,’ the small woman in oil skins shouted back. ‘The windjammer will sail you to Impæriya. It will take you to any destination you wish. Those lights you see on the horizon’ – she pointed to the south-west – ‘are Port Teanegri.’

‘Why?’

‘We needed to act quickly. You are free,’ the woman shouted. ‘The windjammer is a high-speed clipper. With luck, it will get you to Impæriya in three weeks, sooner if the winds are favourable.’

The racket from the rain was deafening. In the light of the intermittent lightning flashes, Hoffmann could make out her interlocutor’s somewhat boyish face. She was sure she had seen her somewhere before.

‘Who are you?’ she shouted.

‘You don’t need to know that. You are free. That is all that matters.’

‘And my companion?’

‘Arrangements are being made. She is safe and will also shortly be free.’

The headlamps of another steamer appeared and drove onto the strand, momentarily illuminating the two ‘priests’ standing dutifully under their umbrellas. Her intuition had been correct: there had been a vehicle following them.

‘Your luggage has arrived,’ the woman in the oilskins explained, not shouting this time.



‘I can’t tell you the details,’ the Teilhardian said, ‘about who or how it was organised, beyond that in a short while your companion will be boarding a windjammer that will take her to Impæriya.’

Xanadu had returned to the canal-bank apartment to find Aggarwal Gustine sitting at the table waiting for her, his oilskin coat dripping wet from the rain.

When he told her that Hoffmann had left, her initial reaction had been shock ... as if the world had slapped her about the head ... the image had flashed through her mind of Hoffmann at the aerodrome saying, smiling, ‘We will meet again’.

‘She is free now, and safe,’ he said, inhaling a breath of therak. ‘But listen to me carefully. This is important.’ The urgency in his voice and something else, a calm authoritativeness, forced her to listen. ‘Your flight pass will be reactivated. Most likely sometime next week, but it could take longer. Then you will be free to go where you will. I suggest you return to Antarkia. You might feel inclined to go to Impæriya but I would not advise that right now, for your sake and your companion’s. Your presence there could create difficulties for her.’

‘Yes,’ she said. Now that she was sure that Hoffmann was safe, her mind had begun to function again.

‘Tomorrow, at about fourteen o’clock, not much earlier and not later, you must go to the Kohors Helvetika office, the one that arranged this apartment for you, and make an official report that Hoffmann is missing. Make it clear to whoever is at the reception desk that is why you are there. Remember that you are in a distressed state. You have no idea where she is. Make a scene if you like. Make sure they remember you.’ He sounded as if he had been schooled by somebody on how to say what he was saying. ‘Tell them that you returned here and she was gone and her luggage was gone. Be sure to mention that. Don’t make up anything, don’t invent anything. You will most likely be asked why you didn’t report her disappearance earlier. Say you

were in shock, that you didn't know what to do, couldn't think. Under no circumstances – I repeat, under no circumstances – are you to say that I was here. Is that clear?’

‘Yes,’ she said.

‘Good. Let's go through it again.’

They did so, several times.



‘I suspect she is on a windjammer somewhere in the middle of the Atlantic, as we speak, sailing the unforgiving sea, heading north,’ Abantu said and exhaled an invisible cloud of therak. He was, as usual, lounging on his divan, Domini Canem stretched out and dozing in front of him. ‘That would have been easier to organise than a dirigible.’

Theresa was standing at the open balcony windows with her back to him, looking out over the city. The rain had paused, giving way to a blue-and-white-clouded sky and intervals of bright, almost cool sunshine. The air smelled fresh and clean.

‘I should never have been chosen,’ she said, as if speaking to the city. ‘I should never have accepted.’

‘Which is why you were chosen,’ he said. ‘That and—’

It was not the first time they'd had this conversation.

‘I know,’ she said and turned round.

That she was less venal than most, she knew; but that was something that came naturally to her for the most part. Virtue that coincided with one's nature was not entirely without merit, but the greater merit was in the exercise of those virtues that required one to act contrary to one's nature. And it had not been solely for her lack of veniality that she had been chosen.

‘Who arranged it?’ she asked, changing the subject.

Abantu grimaced, his amber-brown eyes, as always, unreadable. But he was adept at pretending ignorance when it suited his purposes; through perhaps he really did not know.

‘This will not be the only time that you will be called upon to justify actions in which you had no hand,’ he said, ‘the perpetrators of which you are ignorant, whose motives you can

only guess, and of which you do not approve. For the greater good.'

'But who?' she asked. The question was addressed as much to herself as to Abantu. 'The Teilhardians? Aggarwal Gustine?'

'He would have needed help.'

'Or did Hoffmann arrange it herself? That's possible, isn't it?'

'Accept it. It cannot be undone.'

'But why?'

'That will doubtlessly reveal itself in the fullness of time.'

But enough of idle speculation, she decided. She needed to think practically.

'What do you suggest we say to the Impæriyans?'

'The Nuncio is there for such awkwardnesses. He will know what to do. I'm sure he'll savour the challenge.'

'He will need to inform them immediately.'

'That would be wise. He will be aware of that.'

'The Antarkian woman needs to be told that she is free to travel,' she said. 'There is no point in detaining her here now. I presume it is in my power to order that.'

'It is. But I think it might be prudent if I have a conversation with her before she takes her leave of us.'



A week later a uniformed Kohors Helvetika officer knocked on the apartment door and told Xanadu there were some formalities to attend to regarding her flight pass, and that he was available to drive her to the city centre, and back, in his crawler.

It was raining heavily again as he drove them slowly through the near-empty streets. She assumed their destination would be some barrack-like office in the administrative quarter. The last place she had expected that he would pull up in front of was the Palatium Apostolicum.

'I'll wait for you in the reception hall,' he said.

The building looked even less palatial in reality than in the photographs she'd seen of it.

The Holy Fool, Oktavian Abantu – she didn't know it was him

until he introduced himself – was stretched out on a divan, taking long slow breaths from a tube-stemmed and ornate therak vaporiser. A large black wolfhound, which had been lying on the floor in front of him, strolled over to her, sniffed her several times, and then returned to its place. He asked her to be seated; he did not rise to greet her but she somehow did not feel he was being impolite.

‘Tea?’ he said. ‘Perhaps some cake?’

His Ænglisk was accentless; most Afrikans spoke it with a strong accent. He was dressed in a blue-and-green checkered robe, and there was what she assumed was a ceremonial scourge on the small table beside him.

‘I thank you,’ she said.

He picked up a little brass bell from beside his vaporiser on the table and rang it twice.

‘The issue of your flight pass has been resolved,’ he said.

‘So I am free to travel now?’

‘Yes, whenever you wish.’

A young woman, bearing tea and mango cakes, appeared. Her dress resembled a servant’s livery of the type worn by menservants of some bygone age. She poured the tea into delicate ceramic bowls.

‘It’s considered a grace to be called to serve in the household of Her Holiness, to serve the servant of all, as we say,’ Abantu explained after the young woman departed. ‘We had no choice. We suspect you of no ill will towards us. And we wish you no ill will. You were in the wrong place at the right time, like most casualties of politics.’

There was a sharp crack of thunder and the building vibrated for a few moments, followed by a muffled cannonade from somewhere in the distance.

‘Every building in Roma Nova has lightning conductors,’ he said. ‘These storms rarely cause any damage.’

‘How long do the rains last?’ she asked him.

‘Another month, perhaps. We’ll know it’s over when the fireflies come out. One becomes used to it. To be honest, I find

these thunderstorms oddly reassuring. It does us good to be reminded from time to time that our fates are not entirely in our own hands, if at all.' He raised his eyes skywards and pointed upwards, seeming to parody himself. 'The hailstones are another matter. They can be as large as pomegranates. Not something one wants to experience too often. Luckily that only happens now and again.'

He had the air of a man who had seen much – she knew he had been the Holy Fool to at least two previous pontifices – and was somewhat weary, yet at the same time puzzled by the motivations and doings of humankind.

'The reason I invited you here,' he continued, 'is to request something of you.'

'Yes,' she said, giving no indication that she had accepted what she supposed was an apology of sorts. Which he seemed neither to expect nor not expect.

'You will no doubt have concluded that this whole affair has wide-reaching and, regrettably, grave political implications for the relationship between the Sovranty and Impæriya. All very embarrassing too, of course. And all the result, equally regrettably, of a series of errors by people of great influence here in Afrika Minor, myself included, also regrettably.'

She wondered if his apparent honesty was genuine or a ploy to draw her into his confidence. She had no idea what he might not be telling her; he was obviously choosing his words carefully.

'We are in the midst of a diplomatic crisis,' he continued, 'which if not satisfactorily resolved, could cause much damage. Negotiations of the most delicate nature are taking place. The failure of these negotiations could also impact the Commonwealths.'

'I hold no offices or position of influence in Antarkia,' she said, wondering if he really had any idea of how these things worked in the Commonwealths. Few in Impæriya or Afrika Minor did.

'I suggest that perhaps you are being modest,' he said. 'But

you misunderstand me. All we request is your discretion regarding these matters until things have settled. It will be to everyone's advantage if the events of these past few months are not – for the moment – revealed to ... how shall I put it? ... the uninitiated.'

'And if I do not agree?' she asked him.

'It's a request. Whether you oblige is entirely up to you. I think that on consideration, you will find it a reasonable request, and advantageous to all concerned.'

Then he smiled at her. For a moment she thought there was something triumphal about it – a gleeful self-satisfaction at having judged her character so precisely and manipulated her into wanting to comply with his request – but it was not that. Though what it had been, she could not tell.

He summoned the servant again to escort her back down to the reception hall, where the Kohors Helvetika officer was waiting for her. But just before she turned to depart, he spoke again.

'A personal question?' he said.

'Please. But I won't promise to answer it.'

'Your facial tattoo? Is it the symbol of your cult-society?'

'No. It's a snowflake,' she said. 'Of no esoteric significance.'

'How many cult-societies are there?'

'Myriad. Figuratively speaking.'

'As in the land of a thousand utopias?' he suggested, almost laughing. 'Oh and,' he added, serious again, 'one other thing. Your companion should be well on her way to Impæriya now.'

She realised that she had not asked him where Hoffmann was.

'I assumed that was the case,' she replied, thinking quickly.

'Of course,' he said, obviously not believing her. 'A reasonable assumption, I suppose. It's merely that I was somewhat puzzled by your not enquiring.'

But it had hardly been a reasonable assumption. It should have been the first thing she had asked him. That was what he was saying. She still wondered how much he knew, if he knew of Aggarwal Gustine's clandestine visit to her on the evening that

Hoffmann had disappeared.

‘I thought you’d like to be informed,’ he said, adding as he smiled again, ‘officially.’

‘I thank you,’ she said.

He made no more of it.

20

Hoffman spent nearly the whole of the day of her arrival telling Mao-Te what had happened over endless bowls of tea. He listened silently for the most part, which was unlike him, given his usual loquaciousness.

The journey had taken her three and a half weeks. Weeks of days that grew shorter, and nights that grew longer, the further northwards they sailed. And too much time to think about what to do when she finally reached Impæriya. North of Irlandia, they'd spent nearly twenty-four hours sailing through a giant algae bloom. During the day the sea had been a dull rusty-orange as far as they eye could see. At night, in the glow of the moon through the clouds, it had been a metallic-tinged luminous expanse, like the imagined surface of some alien planet illuminated by a faint sun. The captain and crew were more than willing to converse on any subject under the sun except about who was paying them. Mærksængelgradtshka hadn't been on their charts but she had a fairly accurate idea of where it was located; and there were some distinctively shaped rocky islands offshore of it, and visibility had been good. The windjammer's lifeboat-tender had ferried her to the shore. Once on land again – it had been early morning – she had sought out Graeber, who'd brought her up through the labyrinthine network of channels to Mao-Te's amphibious cabin in his flat-bottomed boat.

'There are rumours that Dianovitch has moved to initiate a reorganisation of the Directing Committee of the Antiquities Bureau,' Mao-Te said when she had finished telling him about the journey.

'Liam Dianovitch is a methodical man,' she said, inhaling a breath of therak.

'I have little doubt he already knows that you have left Afrika

Minor. He will have made a pedantically comprehensive list of where or to whom you might possibly go. This place will definitely be on it. Our acquaintance – and similarity of views – is hardly a secret.’

‘I could think of nowhere else,’ she said.

‘Did you talk to anyone in the fishing village besides Graeber?’

‘Only to Graeber.’

‘And you are sure nobody else saw you?’

‘I’m as sure as I can be. And if somebody did see me, they wouldn’t know who I am. But Graeber does know my name.’

‘Graeber’s not very talkative at the best of times,’ he said. ‘I should have had a word with him when you arrived. But he’s delivering some supplies the day after tomorrow. I’ll do it then. In any case, if any outsiders turn up and start asking questions, the villagers are unlikely to be co-operative. They’re not averse to engaging in a bit of treasure hunting when the opportunity presents itself. So they don’t take warmly to outsiders enquiring into the comings and goings of anyone who has business with any of them.’

‘Treasure hunting?’

‘Phantomatic micro-simneuralators and phan-chips. The grey trade. There’s a source somewhere east of here. I’ve never been able to find out exactly where.’ He had once told her that there was a period in his life when he had immersed frequently. ‘Some of what they find is highly functional,’ he added, as if reading her mind. ‘Or so I’ve been told.’



‘The Kinvolk have never been a priority for scientific enquiry,’ Mao-Te said. He and Hoffman were huddled round his biogas stove. Outside, a moonless, frosty arctic night had descended over the Boglands, silent except for the occasional hoot of a bog owl. ‘But every few decades or so, there are minor flurries of interest by some lone maverick – among whose number I include myself – who venture out into the Wilderness and

gather data on them. Mostly driven by some inexplicable intuition that there's something to discover, something we're missing. There's a few medical surveys, some demographic information, surveys of dietary practices, migration patterns, that kind of thing. I've looked through it all. Anything that could be even remotely relevant.'

'But their smallness,' she said, 'pale skins, their night vision, early sexual maturity, their being semi-nocturnal ...'

'That is what is visible. DNA analysis is what is required. But not even the tekgenicists have the type of sophisticated boolean equipment needed for that. Unless the Antiquities Bureau has some hidden away in an underground bunker somewhere.'

'That's most unlikely,' she said.

'However, there is a range of biochemical markers that can be monitored. Their normal body temperature appears to be nearly one degree higher than ours. But I haven't any idea what that means.'

'Perhaps they are adapting to a hotter environment at some deeper metabolic level.'

'Bio-symphonics is a bit of a black box still. There is so much we do not understand.' He paused for a moment. 'Sometimes I think that if humankind has a future, it's the Kinvolk. We always make the mistake of thinking things develop linearly, but they don't really, not over the long term. But enough of my theories. Have you come to a decision?'

'Yes, I have decided,' she said.

The thought occurred to her, for no particular reason that she could think of, that perhaps making free decisions, like love – or rather loving, actively – too, was something that one needed to practise, to strive towards.

'The radiotelephone is not secure,' he said.

'Is there an alternative?'

'No. Unless you want to use the post?'

'That's hardly an option.'

‘Why am I not surprised?’ Dianovitch said as Quastimodo handed him back the pages of intercepts from Mao-Te’s radiotelephone conversations. He had arranged to meet her in the Mendeleef Park. The Secretariat headquarters was getting claustrophobic, the walls closing in on him, which in a way they were, metaphorically. The bench overlooked the serpentine pond, and directly opposite stood the relief sculpture of Mendeleef’s periodic table, guarded by the oversized statue of the bearded, long-haired neo-ancient chemist himself, asleep in a throne-like chair. Legend had it that the final arrangement of all the elements in the table had come to him in a dream. ‘Any fool could see that he was setting them up.’

It was one of those stunningly beautiful sunny days: the sky, blue, fresh and pure, and almost cloudless. The green dome of the House of the States-General Doma was visible in the distance.

When Hoffmann had arrived at his Rim Boglands research station, Mao-Te had contacted Tekgenicist Dolkar Ögedei on the Island of the Spheres and sent her a series of messages which to any casual listener would sound just like idle chatter. But it had been idle chatter with a purpose. Then, via a code word most likely, the real message was sent, euphemistically worded but clear enough, arranging for a windjammer to be sent to Mærksængelgradtshka to bring Hoffmann to the Archipelago. The procedure, clumsy but effective, must have been set up beforehand. Perhaps when word had filtered through that Hoffmann had left Afrika Minor, perhaps even earlier. In any case, the listeners had missed it.

‘So she is at the Gildija Mother House,’ he said.

‘She was there a week ago. So I presume she still is. I don’t think she’ll make an appearance in Polærisgradt just yet.’

A child in a belted turquoise woollen kosovorotka was feeding chunks of crusted rye bread to the white egrets on the edge of the pond.

‘I have been outmanoeuvred,’ he said. ‘Siemens has been elected to the Executive Committee, which makes the Directing

Committee of the Antiquities Bureau untouchable.'

'It is impossible to foresee all eventualities.'

'It's possible to see some,' he countered.

The Gildija had decided to initiate a vote to remove him as the Executant-Clerk of the Guardianship Secretariat. All holders of senior public offices had to be approved by all five States; though divesting a public servant of his office was somewhat more complicated.

'True,' she admitted.

But it was worse than that.

'There are moves to bring a charge against me of contravening the Universal Declaration of Obligations,' he said.

'On what grounds precisely?'

'Conspiring to illegally deprive Hoffmann of her social and personal liberties.'

Quastimodo suddenly looked more concerned than she had been.

'With persons unknown,' he added. 'Nobody else has been named. Nor will they be. It would only confuse things. And cause no end of political awkwardnesses.'

'Everything you did – that we did – was to defend the Concordat. No tribunal can ignore that.'

'Didn't go through the correct channels,' he said scathingly, as if he had not heard her. He must not become bitter, he thought to himself. Things were as they were. He had miscalculated. Looked at in the cold light of day, and in hindsight, it had been foolhardy of him to have acted alone, to have thought that he could do so with impunity. He should have sought the approval of the Guardianship Directing Committee. But power was treacherous. One never truly knew how much of it one had, imagines one has. 'Which is true. And was foolhardy. I shall offer no defence, as long as nobody else is named.'

'So Siemens has prevailed,' she said.

'The Executive Committee will accept Afrika Minor's offer of what the Nuncio calls their unconditional surrender.'

'Which was your plan all along.'

‘The ironies of politics. The shuttlecraft will be handed over to the Antiquities Bureau.’

‘Who will not destroy them?’ she said.

‘No. Eventually, they’ll figure out how to launch them into orbit. They will play at being cosmonauts. But they’ll never be able to do more than that.’

‘Then why? Why were you so determined to see the shuttlecraft destroyed?’

‘Unfinished business tends to make me uncomfortable, I suppose,’ he said. ‘Do we ever really know why we do what we do?’

The sun was now in that position in the sky where it had an uncanny effect on the relief sculpture of Mendeleef’s periodic table. The solar rays, moving from left to right, slowly lit up the mosaic of miniature mirrors that made up the neo-ancient Russk letters used to symbolise the elements, and for a few moments the monument seemed to become alive.



‘It’s good to be back,’ Xanadu said.

Her return journey to Antarkia – on the *Giordano Bruno* – had been largely uneventful.

‘And it’s good to see you,’ Platonow said.

He looked weak, brittle, almost a shell of his previous self. The little grey hair he had was now less and wispiest. There were moments when he seemed unreachably distant, partaking in another dimension of being. The rational part of her soul told her that was a psychological reaction to seeing somebody she loved on the threshold of corporeal dissolution, of ceasing to be. And being uncomfortably reminded that she too was irrevocably drifting through time towards her own ceasing. He sensed her unease.

‘I’m just dying, happens to us all,’ he said, half-laughing. ‘Forget about it. It’s what I try to do.’

‘My apologies. I didn’t mean to—’

‘No need to explain,’ he said.

His room at New Lhasa School – his ‘monastic cell’, as he called it – contained little more than a few chairs, a plain wooden wardrobe, a single bookshelf, his rolled-up sleeping mat, and his uncluttered desk under the window that looked out over the treeless courtyard. There was a cramped alcove-kitchen but he took most of his meals in the communal dining room. The unframed landscape painting by Aralk Dranmai was the only concession to visual sensuality.

‘Now tell me everything,’ he said, inserting some kelp briquettes into the stove. The smoky, pungent sea smell made her feel at home.

She began at the beginning, with Aggarwal Gustine’s discovery of the neo-ancient shuttlecraft.

‘... then, several years ago,’ she said after she had told him about the building of the Lemaître Observatory and their learning how to fly the vehicles, ‘the Teilhardians convinced the Kuria to approve the building of a missile-rocket capable of launching one of the shuttlecraft into orbit, and to attempt to journey to Copernicus Delta—’

‘To Copernicus Delta!’

‘The Teilhardian’s radio observatory has been monitoring it for years and were convinced – and still are – that the station is still largely intact. They were having problems constructing the hydrogen-oxygen propulsion engine for the missile-rocket they were building. Then the Object appeared.’

‘Feel free to partake,’ he said. ‘It does not bother me. Truly.’ She took out her vaporiser.

‘And it went into orbit round Mars,’ she continued. ‘Which suddenly lent the whole affair a new urgency. Aggarwal Gustine was convinced that if they could launch a shuttlecraft, and reach Copernicus Delta, they could launch a robot-probe from there to Mars.’

‘But they had not managed to build a working missile-rocket.’

‘Precisely.’

She inhaled a breath of therak.

‘The Impæriyans – Karthika Hoffmann, the cybionoid

Wallace – agreed to supply a hydrogen-oxygen propulsion engine,’ she continued. ‘Two of them, in fact.’

‘But none of the Impæriyan factions believe that the Object is anything other than a natural phenomenon, anomalous perhaps, but natural, and not some artificial artefact.’

‘Yes. But Hoffmann and her circle believe that going out into space again, even in a limited way, will wake up Impæriya from what she called its long sleep, and tilt the balance of influence in the Bureaucracy in favour of the dissenters. The Afrikans – or rather the Nuncio Hamlet Kemale – offered to give them two shuttlecraft in exchange.’

Then she told him about the disaster, about the missile-rocket exploding.

‘I wrote in Tazman in case my correspondence might be being read,’ she said. ‘Which, admittedly, in hindsight, was extremely unlikely.’

She told him of her audience with the Holy Fool.

‘He reminded me of one of those neo-ancient Nipponese wrestlers. Rikishi I think they were called.’

‘It is indeed curious what idiosyncratic institutions we have salvaged from the ruins of neo-ancient civilisation,’ he said. ‘And from even earlier. The sixty-second minute. The seven-day week. The three hundred and sixty degrees of the circle. The signs of the zodiac. We still use the word *dozen*. But then, every society contains residual features of previous societies, which survive as marginal activities. Capitalocratic society had residual features of pre-neo-ancient warlord-despotism. And, one could argue, the grey trade is a residual feature of capitalocratic socio-pathology ... But I ramble. I shall make some more tea.’

While he did so, she contemplated his ‘monastic cell’ again. Over the last thirty years he had lived six months of every year here, spending the other months travelling between the schools. She had once, years ago, asked him, thinking of her cluttered cottage in Frederikefels, how he managed to maintain himself in conditions of such spartan simplicity. Habit, he’d said and

laughed. He did all his research and typewriting in the library; it had more books than anyone could read in a lifetime, every edition of Encyclopaedia Antarkia including supplements, and a microfilm reader on every second desk. The Aralk Dranmai painting was of an impressionistic wall of fire rolling over a smouldering moorland under a smoke-filled sky; it must have been at least a century and a half old.

‘The idea that humankind has a cosmological destiny is the core of Teilhardian theo-systemics,’ she said when he returned from the alcove-kitchen. ‘Or at least the potential for such a destiny. A destiny that our species is under obligation to attempt to realise. But if we are not alone in the galaxy ... Well, that would put a different perspective on things, one supposes. They wanted to know. I think that is what really motivated them.’

The tea was a ginger blend.

‘Not some fantasy about repairing the Landauer Shield?’

‘No. Not consciously. At least I don’t think so.’

‘And now the mystery of the Object will never be solved,’ he said.

‘It would appear not.’

‘Well, I suppose we all depart the world with unfinished business, with mysteries unsolved, wondering what the future holds,’ he said and was silent for a moment.

In her mind’s eye, she glimpsed him on the boat being ferried to the Island in the Lake by a shamaness in sky blue robes.

‘And you? What are you going to do now?’ he asked.

‘Return to Frederikefels, I suppose.’



Gustine found Oktavian Abantu on the roof garden of the Palatium Apostolicum. The Holy Fool was taking his usual daily exercise: twenty circumnavigations of the perimeter pathway on his three-wheeled velocipede. The sun was shining, the air dustless and almost cool after the monsoon, and smelling of fresh, growing vegetation. His beloved rare and exotic plants were nearly all budding or in bloom.

‘The world is being reborn,’ Abantu said as he alighted from his velocipede. ‘How miraculous it must be at the poles when spring comes after their long dark winters!’

‘A sight to behold, no doubt.’

‘You have the look of a man bearing tidings,’ Abantu said, a momentary expression of concern on his face, ‘Nothing grim, I hope.’

‘No. Nothing grim.’

‘Good. Let us be seated and enjoy the aspect.’

They made their way to one of the wooden benches.

‘I have always been of the opinion that we should commemorate the Resurrection at this time of the year,’ Abantu said as they sat down, ‘when everything comes to life again.’

The view was to the north, away from the city centre and the dome and minaret of Saint Peter and the Magdalene’s. The only landmark that rose above the sea of roof gardens, many of them a mass of green foliage now, was the obelisk that had been transplanted from Roma Antika and erected in the cemetery-park. A band of steamy heat haze rising from the estuary stretched across the horizon.

‘Once upon a time the date on which Easter should be properly commemorated was a matter of considerable controversy,’ he added. ‘It was essentially a spring festival, in the northern hemisphere. So what non-grim tidings do you bear?’

‘The Object is no longer orbiting Mars,’ Gustine said, extracting his pocket vaporiser. ‘It started to head out of the solar system – in a direction away from Earth – several days ago. Silently and uneventfully.’

The Teilhardian inhaled a breath of therak.

Abantu said nothing for a moment.

‘I presume you mean radio-silently?’

‘We never picked up a signal of any kind. The Archenhold people say it’s on a trajectory that will bring it within two million kilometres of Earth. It’s moving at quite a speed, and accelerating. If it intended to go into an Earth orbit, not that there is any evidence that it has ever intended anything, it would

be decelerating.’

‘Do they have any idea where in the cosmos – in which we are *less than a grain of sand upon a windy beach*, as some poet once lamented – it might be heading to?’ Abantu asked.

‘HD 219134. Possibly. System HD 219134.’

‘Which is?’

‘HD 219134 is a main-sequence orange-hued star in Cassiopeia, twenty-one light years distant,’ Gustine explained. ‘According to the archives, it has six exoplanets, one Earth-sized. There are no records of any moons.’

‘A long way away.’

‘You could put it like that.’

‘So what was it all about?’

‘I doubt we’ll ever know.’

‘*And in those days there shall be signs and portents in the heavens,*’ Abantu quoted.

‘The Book of Revelation?’

‘From the Book of Oktavian Abantu.’

Gustine laughed.

SEVERAL MONTHS LATER

21

When Xanadu returned from Platonow's funerary rites, there was a thick brown envelope waiting for her in her Frederikefels School post box. She recognised the handwriting immediately. It was Hoffmann's. But she resisted the urge to open it there and then. Platonow's death had hardly come as a surprise but she was at that phase of grief when the solid physicality of the world was slowly reasserting itself. Not that the dreadful waves of diminishment she was feeling could be categorised into neat, psychologically definable phases. And as with loving, everyone grieved in their own particular way. She was also exhausted after the monorail journey. So she put the envelope in her bag along with the rest of the post and made her way along the cliff path to the commune and her cottage.

The sky was grey and heavy, indifferent, as was its wont, to human woes; and the sea was still unsettled after the storm. Two blue-sailed windjammers, little more than specks in the distance, were sailing motionlessly towards the horizon. She recalled that autumn evening – how time slid so treacherously by! – when she had seen Platonow's aero-liner arriving, and Venus had been exceptionally bright in the sky. The mystery of time, she thought, the mystery of it all, of death and life. There were moments when one thought one had glimpsed into the essence of things, beyond the surface of things, but the memory of such insights, if they were not mere comforting illusions, invariably faded to become vague memories of memories. She remembered their now seemingly endless conversations, like one, years ago ... She couldn't recall where exactly they had been; perhaps it had been in the pine woods near the

Symposium. They had been walking down a winding path, hand in hand, talking and talking, almost as if they had been two parts of the one mind conversing with itself. Then too, like now, the sky had been grey and overcast. It had been misty, and she had been wearing her heavy green cloak, the one Pelikan Ghosh had said suited her.

She looked at the ocean again and thought of Hoffmann, beyond the horizon, at the other end of the Earth, and of what love was in the absence of the beloved, separated by vast distances, or in the case of the dead by time.

Pelikan had led the funerary dances. Afterwards, she had spoken to him briefly as a half dozen of Platonow's cult-society fellows from the Rising Dark Moon had lifted Platonow's body from the donkey-drawn hearse and carried it in procession to the New Lhasa Tower of Silence. But he'd said very little; mostly just half-smiled fatalistically.

The cottage was cold and damp. She had been away for nearly a week. But there was a full basket of kelp briquettes, so she packed the stove and lit it. She made a pot of tea while the place warmed up and the sea-smelling fire exorcised the dampness. Finally, with a feeling of trepidation, she opened the envelope. The letter was dated four weeks earlier, and short. Hoffmann was not a great letter writer. There was also a bundle of gazette cuttings.

It is autumn here now. The days grow short, and the nights grow long, dark and stormy. I imagine that in Antarkia all is coming to life again and soon, to paraphrase that poem, the white cherry blossoms will be falling in the rain like snow in spring ...

By now news of what has been happening here in Impæriya will without doubt have reached you. So I will not tire you with a detailed account, beyond saying that I am now officially Executant-Clerk of the Impæriyan Guardianship Secretariat. Dianovitch has accepted voluntary banishment to a remote island west of Grænland. Moves to charge him with

contravening the Universal Declaration of Obligations have been quietly shelved. The enclosed articles from the gazettes give a reasonably accurate account of all the politicking involved.

I miss you sorely. I miss how I could be so utterly myself (or one or more of my multiple selves, as you would say) in our most intimate moments. I miss your body, and your hands and mouth and the feel of you, your animal desire and sensitivity. I miss ... I miss ... (I grow modest.) I have ambrox-scented memories of you. Oftentimes I think that our lives, except for the ungraspable present moment, are essentially our memories. Some we bathe in languorously, revisiting them time and time again. Some we shrink from and bury in the depths of our minds before we have even properly remembered them. Others are the occasion of futile regrets. But most just accompany us from moment to moment in the manner of casual acquaintances who slip in and out of our lives, not overmuch noticed. But my memories of our times together sustain me more than you perhaps imagine!

Finding myself sitting at Liam Dianovitch's desk and spending my days in his office – now my office – was not any clearly defined ambition. But to say it 'just happened' would not be entirely true either. Power has an allure, but none are seduced who do not in some degree wish to be seduced.

Dianovitch was surprisingly co-operative about the transition from his 'reign' to mine. There were awkward moments, moments that mutely demanded that something be said but usually was not. There were times when I suspected that he was glad to be free of it all ... and that one day I would feel the same way. However, right now I cannot imagine that.

You once spoke to me – perhaps it was that time we went walkabouting in the Wilderness – of the function of rites in Antarkian cult-societies. Of how, while much of it was pretence,

a playing; but that if a rite was worked in a certain state of mind, it caused subtle changes in one's psyche, and thus the world. For, you argued, the psyche is an integral component of the world, as real as the land and the sea, and the sky, all of which exist as much within our minds as outside them. You of course expressed the concept more subtly. When one accepts an office, takes on a title, promises certain loyalties and to perform the duties associated with that office: that is also a rite ... and it changes one.

Thinking often of you, Karthika

There were about twenty gazette cuttings. The headlines were typically Impæriyan: functional, as dry as the subheadings in a repair manual for a sewing machine. The few black-and-white photographs illustrating some of them were equally uninspiring: stiff portraits of Liam Dianovitch, Historian Siemens, and of 'Karthika Hoffmann, the newly selected of the Executant-Clerk of the Impæriyan Guardianship Secretariat', and a few group photographs. She had a vague memory of Dianovitch. Platonow had met with him briefly a couple of times during the proceedings of the Biosphere Commission and she had interpreted. But she only glanced through the texts, deciding she would read them later.

There was a clear view of the ocean from the window. A murmur of starlings, newly arrived from the north, was whirling about over the metal-grey vastness. The terns too would soon be arriving.

Hoffmann had said nothing about meeting again.

EPILOGUE

TEN YEARS LATER

22

The signal arrived on Christmas Day, just when it was expected, half an hour after the sun had set. The remote-controlled robot-probe was finally preparing to begin its descent to the planet's surface. Sébastienne's reply-signal, instructing it to switch on its camera, took nearly eight minutes to reach it. Then, eight minutes later, a silent, grainy image appeared on her camera-monitor: a reddish crescent disc, suspended in the blackness of space. But she could also see light grey patches on the planet's surface. And twirling wisps of whiteness. Clouds, far more of them than she expected. Clouds on Mars were rare. Those closest to the surface were of carbon dioxide; those in the upper atmosphere, water vapour. There were also descriptions in the archives of the occurrence of large mother-of-pearl iridescent dust clouds; but the large number of clouds she was seeing were white and did not look like dust.

She activated the videotape recorders, all four of them. The opportunity would not come again, and she didn't want to take any chances.

It had taken years to infiltrate Copernicus Delta's boolean systems; most of them had been encrypted using the Mung-Hababullah procedure. But once she had gained entry to them, programming and launching the robot-probe had been easier than she had anticipated. It had taken nearly six months to reach its destination and had then spent another month in orbit. And now the alignment was optimal. The dayside of Mars was facing

the nightside of Earth and, crucially, also facing the Lemaître Observatory's parabolic dish antennae.

A blurred point of light, one of the Marian moons, the largest one, Phobos, or rather the remains of it, appeared for a few moments before disappearing round to the planet's nightside. According to the archives, it had lost nearly half its mass during the disaster of the Phobos Fragmentation and had also dropped into a slightly lower orbit. Deimos, Mars's other moon, much smaller, and orbiting the planet much further out, she was unlikely to see.

She adjusted the camera-monitor's focus and colour-definition settings until she eventually achieved a satisfactory compromise: sharper focus but at the expense of colour definition, which was gaudily synthetic. Another monitor displayed the coordinates of the Lemaître's dish antennae; they were all synchronising, not perfectly, but as well as they ever did.

The robot-probe, following its programmed trajectory, disappeared round to the nightside of the planet, where it would continue its slow descent. There was nothing to do now but wait until it came around to the dayside again.

In the chaotic months following the first, disastrous Teilhardian attempt to launch a shuttlecraft, a few of the Kurators had argued for shutting down Lemaître entirely; and it had been seriously considered. But luckily, Aggarwal Gustine, with the adroit support of Theresa II, had been able to avert that course of action. His argument that it would be 'sacrilegious' to cease to gaze up into the heavens – the origin of all philosophy, he had pointed out – had prevailed. It had been the first time she had heard that archaic word used in argument, and never since, but such were the political passions that had been awakened by the disaster, that 'sacrilegious' seemed the only suitable description. The Object from the Stars had already left its enigmatic Mars orbit by then, and it was on its way to System HD 219134, if that was truly its destination. It would be centuries, millennia, before it got there; and impossible to know

to what speed it would eventually accelerate. It had been visible only from the northern hemisphere by then, and the Archenhold Observatory had been able to make some interesting observations during its closest approach to Earth. Though it had been little more than a point of light against the background of stars, they had been able to confirm the variations in its luminosity that Indraghosh had initially detected. Which, many had pointed out, were similar to the observations that had led to neo-ancient speculations that the Messenger Legend object had been a photon sail. But it was also possible that the wanting to believe that the Object had been the artefact of an alien intelligence had also been not wanting to believe that humankind was alone in the cosmos ... Alone and heading towards extinction, though the Impæriyan Mao-Te maintained that some of the Kinvolk were uncannily adapting to life in the Wilderness in ways that were not, for the most part, understood, and perhaps even gradually evolving into a new human species. But perhaps that too was wishful thinking. All subsequent attempts by the Siemensian Reformed Bureaucracy to launch the shuttlecraft even into a stable Earth orbit, not to speak of getting to Copernicus Delta and manually launching a robot-probe to Mars from there, had also failed.

An hour later, the robot-probe came round to the dayside of Mars again. The image on the camera-monitor was no longer of the full Martian disc. The robot-probe was flying lower now, and its camera could no longer take in the entirety of the planet. She noticed a silver point of light, or light being reflected from something metallic. At first she thought it was something on the planet's surface, perhaps the remains of a dome colony. But it was moving, and slowly growing brighter. The respective trajectories of whatever it was and the robot-probe were bringing them closer together. She signalled an instruction to the robot-probe's camera to track it. The timelapse between sending the signal and the robot-probe receiving it was annoying but manageable; it meant that she could only send very general instructions.

Sixteen minutes later, she was able to see that the point of light was a toroid-shaped structure with central spokes and a hub, similar to Copernicus Delta. It was too far from the robot-probe to be able to make out any other features, but she could discern irregularities on one side of the toroid ring, like a series of chunks bitten out of a ring cake. The whole structure was tumbling, rolling erratically, not displaying the regular spinning movement that one would expect from an orbital station. But she was sure that's what it was. Brahmagupta Gamma, it seemed, unlike Copernicus Delta, had not survived intact down through the centuries. According to the archives, it had been unaffected by the Phobos Fragmentation, so it must have been hit by meteoroids or orbital debris. As it gradually grew smaller and disappeared off the edge of the camera-monitor, she caught another glimpse of Phobos.

She signalled to the robot-probe to readjust its camera back to its original settings, to face directly down towards the planet's surface. She would not see Brahmagupta Gamma again. The next time the robot-probe traversed the dayside of the planet, it would be too close to the surface, with the orbital station then several hundred kilometres above it.

After another sixteen-minute wait, she was again able to observe the Martian surface. But beyond the near-featureless rusted and grey-white expanses, which, like the clouds, must be the result of some degree of terraformation, the only details she could clearly make out were the rims of some of the larger overlapping craters.

Eventually, the robot-probe disappeared round to the nightside of the planet and the monitor screen darkened. The next time it came around to the dayside, it would have further decelerated, bringing it much closer to the planet's surface. Again, there was nothing to do but wait.

The Cassini crater colony had been founded during the First Colonisation, when the initial schemes aimed at increasing the density of the Martian atmosphere had been implemented. The Martian atmosphere, despite consisting almost exclusively of

carbon dioxide, was too thin to naturally cause any significant greenhouse effect. The Tikhonravov and Herschel crater colonies dated from the Second Colonisation. Schiaparelli had been founded a little later. It was ironic that one of the more perverse arguments, especially in the early days, for artificially initiating a greenhouse effect on Mars, was that if Earth was rendered uninhabitable as a result of the uncontrolled emitting of greenhouse gases into its atmosphere, the colonisation of Mars would ensure that humankind had another home. Or rather, Earth's capitalocratic elites would. The principal terraformation methods used had been on-planet industrial-scale manufacture of fluorine gases: sulphur hexafluoride, chlorofluorocarbons and perfluorocarbons. These were to generate a greenhouse effect thousands of times stronger than that which had occurred on Earth, and cause the release of carbon dioxide from the frozen Martian poles and the planet's subsurface ice and permafrost. Bioengineered extremophile microorganisms were also introduced – the archives were unclear regarding the details – to both aid the greenhouse effect process and produce oxygen.

When the robot-probe came round to the dayside again, it had reduced its speed to two hundred kilometres per hour and was on a much steeper descent trajectory. The craters and dried-up ancient seas and lakes were now clearly visible, especially in the rusty red regions. Specks of bright emerald green were also visible in grey-white patches. Was it vegetation? she wondered. The result of terraformation? There were very few clouds.

She switched on the microphone.

'Can you hear me?' she said.

'Loud and clear,' Aggarwal Gustine's familiar voice replied.

'Everything is going according to plan here,' she said. 'I'm going to transmit the camera-monitor image to you now.' She flicked a switch on one of her consoles. 'Please confirm that it's coming through to you.'

'Coming through clear,' he said a moment later.

The monitor display confirmed that Archenhold and

Indraghosh were also now receiving the images.

‘I’m now signalling the robot-probe to descend vertically to the surface. It will receive the instruction in eight minutes. Another eight minutes after that the images it will take on the way down will appear on your monitors.’

That information was for the benefit of the observation room that had been set up on the top floor – for better radio reception – of the Old Zamsung Palace. Besides Gustine, Theresa II would be there, also Hiroshima Linn, and some of the Kurators.

Together with Aggarwal Gustine, she had spent years searching the Sovranty archives for any scrap of information they could find regarding the terraformation venture. They had gained full access to all the records in the Hall of Archives in Polærisgradt and to those in the Antiquities Bureau Archives on the Island of the Spheres, with the indispensable help of Karthika Hoffmann, now still the Executant-Clerk of the Impæriyan Guardianship Secretariat. Pelikan Ghosh, with whom Xanadu Lakshmi had put her in contact, had scoured the Symposium’s archives, held at various locations in Antarkia. It was he, unexpectedly, who had located the most material, and not only in the Antarkian archives; he was also familiar with the cataloguing system of the Polærisgradt Hall of Archives and was able to give them invaluable clues. But the archives were a dragnet cast into the past, haphazard at the best of times. There was far less information regarding the terraformation than she had expected. Very little in the paper archives had been useful, and neither was what they had found in the few boolean data storage devices she had managed to decrypt. Then there had been the perennial problem with all the late neo-ancient records: how to decide what was fact, what was a description of grand plans which had never been implemented, and what was propaganda and disinformation. When she had first gained access to the boolean databank systems on Copernicus Delta, she had hoped that, finally, she would also find reliable information on the Martian terraformation endeavour, but there had been surprisingly little.

The image of the Martian surface on the camera-monitor abruptly stopped being that of a flyover. Now the robot-probe's camera was zooming down towards the surface, and more geological details were becoming visible.

'We're descending vertically now,' she said.

'The image is coming through clearly here,' Gustine said, his voice crackly over the ether. 'Though the colours look a bit—' 'Synthetic?'

'Yes.'

'Nothing I can do about that, I'm afraid.'

Now it was possible to see the rims of larger craters and the shorelines of Martian seas that had dried up over three billion years ago, when Mars was dying and Earth was beginning to sprout living organisms. Hellas Planitia and Elysium Mons were unmistakably recognisable. The impact crater in Utopia Planitia made by the large piece of Phobos that had broken off during the Fragmentation was now also visible. The clear demarcation between the grey-white regions and the rusty red regions was slowly disappearing. She could see patches of grey-white in the rusty red regions; and in the grey-white regions, smudges of green. The data-monitor was now displaying atmosphere data; though the temperature-value display was flickering, unable to fix on a value.

'I'm getting readings for estimated atmosphere surface density and carbon dioxide,' she said. 'Zero point one kilogrammes per cubic metre. With a carbon dioxide content of ninety per cent.'

'What does that mean?' a female voice asked over the ether. She wasn't sure who it was.

'The density of the Martian atmosphere – on the surface – was originally one point five per cent that of Earth's. Now it's five per cent, nearly three times as dense as it used to be. Carbon dioxide content was originally ninety-six per cent. The ninety per cent it is now is less proportionally, because of an increase in the nitrogen content. Which means there is now more than three times more carbon dioxide in the atmosphere than there

used to be. A significant degree of terraformation appears to have occurred.'

The robot-probe was fully on autopilot now. During its descent, it had still been possible to exercise some measure of remote control but now the communication time lag made that impossible.

'We are also getting a surface magnetic flux density reading. As high as half a microtesla at times. Which would seem to indicate that the Phobos plasma torus is still partially intact, though I have no idea how that might be.'

'Enough to make a significant difference?' Gustine asked.

'As regards?'

'Protection against the solar wind, cosmic radiation.'

'Earth's magnetic flux density is twenty-five to sixty-five microtesla. More than fifty times stronger. So probably not.'

More surface details became visible. The large craters and larger lakebed-like formations gave way to smaller ones. The effect was similar to zooming in on a fractal pattern, the surface features replicating themselves as they emerged at smaller and smaller scales. Then suddenly she was looking down on a mountain range, the flat plain of a dried-up seabed, pockmarked by meteor impacts, and an ancient riverbed.

A temperature reading appeared on the data-monitor. Minus 20 °C but increasing. Minus 19.75 °C. Minus 19.5 °C ... Higher than she expected. Which meant that the clouds must be water vapour or ice dust. The region the robot-probe was descending towards was predominantly rusty red, speckled with patches of grey-white, most likely water ice or frost; the ground temperature would be too high for frozen carbon dioxide. The smudges of bright green contained splashes of yellow-gold and were mainly scattered along the rims of craters and in hill and valley crevices. At a height of twenty-five metres above the surface, the robot-probe stopped descending, as she had programmed it to do, and adjusted its camera angle to 30° from the horizontal.

'We are now on a straight course towards Schiaparelli,' she

said. 'At a cruising speed of twenty kilometres per hour.'

Which would hopefully reveal the extent of the terraformation. And perhaps the fate of the Martian colonies.

For the next ten minutes, the robot-probe coasted over a near-featureless, rusty red plain devoid of any signs of terraformation or artificial artefacts. The landscape looked timeless, as if it had remained unchanged for stretches of time that were barely conceivable, though, of course, it had changed. Mars had never been without weather. Sand and dust storms and acid fogs had been shaping the surface geology for aeons. Now she truly felt that she was seeing, not merely an image on a monitor, but another world. It reminded her of how she had felt the first time she had observed the surface of the moon and the Jupiter system through a small, low-magnification telescope: awe, of being suddenly reminded of the sheer mystery of all that was. The spacefarers had believed that the future of humankind, its preordained destiny even, had been to bloom out from Earth and conquer Mars and the moons of the gas giants, and in time, the countless exoplanets and exomoons of the galaxy. That humankind would transform itself in the process, ultimately becoming a different species. The dream, given different circumstances, and more wisdom, had not in principle been unrealisable; but it was a dream that had been dreamt and undreamt. Humankind would never venture into the vastness of the cosmos again. Perhaps *Homo sapiens*, and all the other human species, had been merely an unfruitful branch on the tree of cosmological evolution, pathways that needed to be trodden, explored for a time, but ultimately abandoned.

The near featureless plain of the rusty red ancient seabed now became a rising and grey-white landscape. The temperature reading was minus 14 °C, but as the robot-probe climbed, while maintaining a constant twenty-five metre height above the surface, it began to decrease. It was cold, but not as cold as it would have been if the planet was still in its virgin state; and not even approaching the temperatures needed to freeze carbon dioxide. Which confirmed, as she had originally supposed, that

the grey-white regions had to be water ice. But it did not seem to be sheet ice or blocks of ice she was seeing. Rather, it looked like the rocks and crevices were covered in a thick layer of frost. For a moment, at the edge of the robot-probe camera's field of view, she caught a glimpse of a small, streaky patch of yellow-gold. But it was gone before she could get a proper look at it.

'Lichen,' Gustine said. 'Genetically adapted. A symbiotic combination of fungi and algae. Some species can survive in the vacuum of space. Needs practically no liquid water. Some lichens also contain acids that help break down rock into soil. That's a guess of course.'

Lichen were among the simple simple life forms which had been genetically adapted to survive the mercilessly harsh Martian conditions and used as potential terraformation seeders. There had been controversies regarding optimal seeding strategies. Some had argued that one should introduce a large number of species and let natural selection unfold, hoping that each successful species would find its niche. Others that a more specific and slower approach would be more effective, because it was possible that if too many species were introduced over a short time period, some might be successful over the short term, but drive other species which had more long-term adaption potential to extinction before they had time to find their respective niches.

Wisps of white semi-diaphanous mist appeared, at times becoming so dense that the surface was no longer visible. Ice-crystal fog most likely.

The surface-elevation display was now reading seven hundred metres above standard zero elevation. The robot-probe was still climbing; but it was maintaining its programmed height above the surface.

'We should be going over the crater rim in a few minutes,' she said. 'Or rather that should be: we have probably already done so, but we'll see the images in a few minutes.'

When the robot-probe emerged from the mist, she caught a first glimpse of the red-pink sky for a few seconds, before the

rim of the crater floor far below appeared.

‘Welcome to Schiaparelli,’ she said.

Then the robot-probe descended at increasing speed down the sheer cliff face of the crater wall, and for about a minute – due to the camera angle – the entirety of the Schiaparelli crater floor was visible on the camera-monitor. Most of it was a rusty red expanse, pockmarked by the impact craters of smaller meteoroids; Schiaparelli itself was the result of a planet-shuddering impact hundreds of millions of years ago. Beyond the rusty red was a mottled green and white crescent-shaped area; and beyond that, skirting around the far crater rim, a thin crescent of white.

‘What are we seeing?’ the same female voice asked over the microphone. This time Sébastienne recognised who it was: Hiroshima Linn.

‘Shade cast by the crater rim, I think, would account for the crescent shapes. The green crescent-shaped area with the white patches could be vegetation and water ice. The thin crescent skirting the far rim looks totally ice- or frost-covered. On most of the crater floor, the reddish sandy area, there’s been little or no evidence of any terraformation.’

‘Plausible,’ Gustine said.

‘We are now eight hundred metres above standard zero elevation.’

‘Which means?’ Hiroshima Linn asked.

‘Using sea level as an elevation reference makes no sense on Mars. So we use a theoretical zero elevation. The actual method used to calculate it is complicated ... Just think of it as being more or less the mean radius of the planet at the equator. The crater floor is minus eight hundred metres, below zero elevation. That’s a sixteen hundred metre drop from the crest of the crater rim to the crater floor.’

The green-white crescent disappeared out of camera range.

The robot-probe was now descending so rapidly that it gave the impression it was almost in freefall. But after several minutes it suddenly came to a stop, twenty-five metres above

the crater floor, and resumed its programmed flight path.

‘We are now heading towards the far side of the crater. Keep an eye out for any anomalous shapes on the surface, anything artificial-looking. If you spot something, you will probably only see a vague shape. Everything will most likely be covered in centuries of dust.’

The robot-probe coasted over the crater floor, which was largely featureless except for random rocks and occasional, ripped depressions that looked like they had been hollowed out by the Martian wind.

‘Our course is due south-east,’ she said. ‘We are traversing the crater following a line just north of the centre point of the crater floor.’

The robot-probe flew over mounds of dark grey-brown gravel and patches of ice. She had no idea what the mounds might be. Her knowledge of Martian geology was not extensive. She wondered if they might be the spoil tips from some long-defunct mining operation. Then the robot-probe was flying over the featureless crater floor again.

Minutes passed.

‘That looks artificial,’ Gustine said. ‘Geometrical.’

Little more than a dust-covered contour, it was barely noticeable; but it definitely did not look natural. It was what seemed to be two rectangular shapes, each perhaps twenty metres long and ten metres across, joined together by what could have been a tubular connecting passageway. But it disappeared from the camera-monitor screen before she was able to get a proper look at it. The short time the images appeared on the camera-monitor as the robot-probe passed over the surface features meant that they were only getting a few fleeting glimpses of them. If it was flying any slower, it would drop to the ground – the Martian ground – like a stone. However, they would be able to examine the recordings later.

They saw more patches of ice, and smudges of green, emerald-bright green, some kind of vegetation. There were no signs of any colony habitation domes yet.

‘What do you think?’ she asked into the microphone.

‘Moss?’ Gustine said. Audibly surprised, but then silent for a moment. ‘But I’m not sure moss was considered a viable seeder. But if my memory serves me correctly, mosses can survive desiccation and low temperatures for long periods. And with genetic manipulation ... But again, that’s just a guess.’

‘Whatever it is,’ she said, ‘it must be very sensitive to environmental conditions, from the way it has distributed itself.’

The image on the screen was similar to a film being taken by a camera sweeping over an irregularly patterned green-and-white carpet. There were no signs of any other types of vegetation.

‘It looks as if each patch could be a single organism,’ she added.

‘It could also be plasmodia,’ Gustine suggested. ‘They’re a type of slime, large single cells with multiple nuclei. A type of protist. Neither plant nor fungus. Nor animal.’

She tried to imagine what life must have been like for the colonists. The archives were consistent about there having been no change due to terraformation in the unimaginably harsh environmental conditions during the cosmonautic era. Even the most desolate Wilderness regions were paradisaical in comparison to conditions on Mars, a world of lethal cold rather than debilitating heat. Air density was so low that if one ventured outside the habitation domes without a pressure suit, the alveolar fluid in one’s lungs would boil. The data-monitor now read four kilopascals: four per cent of the air density on Earth, four times what it had been before any terraformation had taken place, but still a fraction of the level at which one could dispense with a pressure suit. If the terraformation continued at its present rate, it would be centuries before that would be possible. And millennia before the oxygen level increased sufficiently – and the carbon dioxide decreased to a non-toxic level – to allow a human being to venture onto the surface without a breathing apparatus. Even then, solar and cosmic

radiation would still be at cancer-inducing levels. After the Phobos Fragmentation and the destruction of the plasma torus that generated an artificial magnetic field, the colonists had relied on low-powered stationary Sullivan-Orlowska magneto-engines to provide anti-radiation protection; but these only worked inside the habitation domes, which severely curtailed time that could be spent on the surface. She wondered how many of the first colonists had succumbed to cosmoneurasthenia ... Water, however, essential for the production of oxygen and food, had been available in abundance from subterranean water ice. There were accounts of a surprising range of vegetables, legumes and fruits being grown in large garden domes. However, there were also accounts of a diet that was overwhelmingly synthetic – food substitutes grown in tanks using biochemical processes – with very little ‘naturally grown’ food. But then, at least half of the foodstuffs on Earth came from plants which had been genetically engineered during the late neo-ancient epoch. Estimates as to how many colonists there had been in the end could only be conjecture. Twenty thousand according to some sources, with perhaps as many as fifty thousand at the height, of both ‘natural’ humans and cybionoids; though most cybionoids had been designed for deeper space and the moons of the gas giants, and they were also susceptible to radiation.

‘We should be over the Schiaparelli colony in a few minutes,’ she said.

The first habitation dome appeared, or rather a dome-shaped mound covered in the unidentified green plant lifeform; but it was so frosted over it was almost white.

‘According to the map, we’re over the colony now,’ she said.

Another green-tinged frosted dome appeared on the camera-monitor, and a tubular passageway connecting it to the first one.

‘Looks like the map is accurate,’ Gustine said. ‘How many habitation domes are marked on it?’

‘About a hundred in the main cluster. But there are also other structures.’

The camera-monitor was now showing a green-tinged frosted-over matrix of habitation domes, all pretty much the same size – approximately twenty metres in diameter – and their interconnecting tubular passageways. She could not see the full extent of the colony because of the camera's limited field of view.

She checked that the videotape recorders were working. The display confirmed that they were. These could be the last close-up images of the Marian surface that humankind might ever see.

The frosted green contour of a different type of structure appeared on the camera-monitor. For a few moments she mistook it for just another habitation dome, but somewhat larger. But the shadow cast on it by the crater rim was odd, different to that on the other domes ... She realised it wasn't convex, like the domes. It was concave: a parabolic radio dish, still mounted on its support structure. She could just about make out the focal point receiver and its supporting struts. It had probably not been moved for centuries. Then it was gone. For a moment she wondered what final message the Martian radio astronomers had sent, or received, or what deep-space radio emissions it had last monitored.

More habitation domes with their interconnecting tubular passageways came into view again, the shadows cast by the crater rim on their convex surfaces lengthening.

Then suddenly the dark rocky cliff face of the crater rim appeared, and the robot-probe was rising again, steeply. She checked the surface elevation figures on the data-monitor: minus 540 metres ... minus 325 metres ... plus 10 metres ... plus 230 metres ... plus 750 metres. The image darkened, so much that she was unable to make out the colours or the shapes of the rocks. But at plus 890 metres, visibility returned. The robot-probe was now approaching the crest of the crater rim ... And then it was over it. A panoramic view of the landscape appeared on the camera-monitor: a rugged rusty red plain, with small hills and ridges, reminiscent of a Wilderness desert landscape. The red-pink sky was darkening, and a band of pale

blue light stretched across the horizon. The white globe of the sun was setting. Seen from the Martian surface, it looked about two-thirds of the size it would look from Earth, though it appeared bigger in the camera-monitor image.

A few minutes later, as the robot-probe began to fly round to the nightside, the sun disappeared completely, plunging the landscape into a ghostly silver-hued darkness. A bright, pale blue star appeared: Earth. And beside it, a faint white star: the moon. She watched them both as they too sank behind the distant hills, and the stars of the Milky Way filled the Martian night sky. Then there was darkness.



When the robot-probe's power system had finally spluttered to a halt an hour later on the nightside of Mars, she went outside for a walk. After hours in the electrostatic-laden atmosphere of the laboratory, she needed to breath some dawn air. The sun had not risen yet but its predawn glow across the eastern horizon was already banishing the darkness of the tropical night. In a way, the mission had been a final act in a saga that had begun nearly a thousand years ago. But it was also a beginning, or the potential of a beginning: Mars was being terraformed, slowly, on a geo-biological timescale. It had been seeded by humankind, but what direction it would take and what lifeforms might eventually bio-symphonically evolve was beyond human control. Earth might be dying – for humankind, and for the species that had survived the Twilight and its aftermath; the planet itself would persist, of course. We, she thought, like all living things, had once bloomed, though too precipitately, and would pass. But there was not only beauty in the luxuriance of the monsoon season: there was also a beauty in the drying-out season afterwards and in the arid months; and in the autumns and winters of Impæriya and Antarkia. She sat looking at the sun as it rose, heralding the dawn of another day.

NOTES

Some notes and background information, with references, regarding some of the ideas and concepts (most very loosely interpreted) drawn on during the writing of this novel:

Aero-liners – passenger airships (Zeppelins, dirigibles), such as the ill-fated Hindenburg, can reach relatively high speeds. The Hindenburg's fastest crossing of the Atlantic was forty-three hours. It could fly above the clouds, though it did not fly high enough to require cabin pressurisation. An exception was its airlocked smoking room, which was kept at above atmospheric pressure to prevent any accident ingress of easily ignitable hydrogen which might have escaped from the envelope; no naked flames were allowed; a single electric lighter was provided, which could not be removed from the room. Non-flammable hydrogen-N is, of course, an invention.

Archenhold Observatory, the – named after Friedrich Simon Archenhold (1861–1939), German astronomer. He was a pioneer of astronomical photography and discovered the Perseus Nebula in 1891. He built an observatory in Berlin, which housed the world's longest moving refracting telescope (inaugurated in 1896). Albert Einstein gave his first public lecture on the theory of relativity at the observatory in 1915. Archenhold was married to Alice Archenhold née Markusand, a fellow astronomer. In 1938 the Nazi party confiscated the family home – the family had a Jewish background. After his death in 1939, Alice Archenhold and their daughter Hilde were arrested by the Nazis and murdered at Theresienstadt concentration camp in 1943.

Ataraxic Vision – according to the Wikipedia article (8.3.2025) on *ataraxia*: 'In Ancient Greek philosophy, ataraxia (Greek:

ἀταραξία, from ἀ- indicating negation or absence and ταρασσ- tarass- “to disturb, trouble” with the abstract noun suffix -ία), generally translated as “unperturbedness”, “imperturbability”, “equanimity”, or “tranquillity”, is a lucid state of robust equanimity characterised by ongoing freedom from distress and worry. In non-philosophical usage, ataraxia was the ideal mental state for soldiers entering battle. Achieving ataraxia is a common goal for Pyrrhonism, Epicureanism, and Stoicism, but the role and value of ataraxia within each philosophy varies in accordance with their philosophical theories.’

Brahmagupta Gamma, the – the Mars orbiting station is named after Brahmagupta (c.598–c.668 CE), an Indian mathematician and astronomer; he developed the first rules for performing mathematical calculations with zero.

Declaration of Human Obligations – loosely inspired by the ideas of Simone Weil (1909–1943), a French philosopher, mystic and political activist, described in her *Draft for a Statement of Human Obligations and Human Personality* (1943).

Exoplanets – An exoplanet or extrasolar planet is a planet outside the solar system. On 1 October 2023, 5,506 exoplanets had already been detected, 104 of these within 10 parsecs (32.6 light years) of our solar system (NASA). A total of 55 of these are within a habitable zone (at a distance to their suns where liquid water and conditions to support life are deemed possible). Our galaxy, the Milky Way, is estimated to have 200 to 400 billion stars, with an estimated 100 billion exoplanets orbiting them, and moons orbiting many of those. The number of galaxies in the visible universe is estimated to be between 100 billion and 200 billion. As Kurt Vonnegut once wrote: ‘The universe is a big place, perhaps the biggest.’

Lubna Al-Qortobia, the – aero-liner named after Lubna of Córdoba (Arabic: Lubna Al-Qortobia) (d. circa. 984), copyist, translator and acquirer at the library of Al-Hakam II in Al-Andalus (Andalusia, Spain). Ibn Bashkuwāl (1101–1183) in his *Kitāb al-šila fī ta’rīkh a’immat al-Andalus* (‘The continuation on the history of the sages of al-Andalus’), described her as

having ‘great knowledge of mathematics and other sciences’ and being a poet.

Lemaître Observatory – named after the Belgian Jesuit Georges Lemaître (1894–1966). Lemaître first proposed the Big Bang theory of the origin of the universe in 1927; he called it the ‘hypothesis of the *primaevae* atom’. The Lemaître crater on the moon and the asteroid 1565 Lemaître are named after him.

Lichen on Mars – the German Aerospace Center’s Institute of Planetary Research has researched the survivability of lichen on Mars. See ‘Lichen on Mars’ at <https://phys.org/news/2014-01-lichen-mars.html>.

Messenger Legend, the – in 2017, the first interstellar object passing through the solar system was detected; it was named ‘Oumuamua, (Hawaiian for *scout*) and formally designated 1I/2017 U1. Astronomer Avi Loeb of Harvard University speculated that it might be an artefact of an intelligent alien civilisation, outlining his reasons in *Extraterrestrial: The First Sign of Intelligent Life Beyond Earth* (2021). Carl Sagan, in an article titled ‘Direct Contact Among Galactic Civilisations by Relativistic Interstellar Spaceflight’, published in *Planetary and Space Science* (1963), concluded that ‘... there is the statistical likelihood that Earth was visited by an advanced extraterrestrial civilization at least once during historical times. There are serious difficulties in demonstrating such a contact by ancient writings and iconography alone. Nevertheless, there are legends which might profitably be studied in this context. Bases or other artefacts of interstellar spacefaring civilizations might also exist elsewhere in the solar system’.

Mumford, the – aero-liner named after Lewis Mumford (1895–1990), American philosopher and historian of technology. Mumford was deeply concerned with what he called ‘biotechnics’ the relationship between ‘technics’ and ‘bioviability’. He argued for a ‘biotechnic society’ in which technology would not be expanded unthinkingly but, rather, to create and sustain ‘liveability’. In *Technics and Civilization*, he wrote: ‘... the clock is not merely a means of keeping track of

the hours, but of synchronizing the actions of men. ... The clock, not the steam-engine, is the key-machine of the modern industrial age. ... no other machine is so ubiquitous. ... [It] is a piece of power-machinery whose “product” is seconds and minutes ...’

Narwhale – also narwhal, information on their tusks can be found on the Whale Scientists website. Link: <https://whalescientists.com/narwhals-tusk/>.

Omega Point, the – this is a concept developed by the French Jesuit priest and anthropologist Pierre Teilhard de Chardin (1881–1955), and described in his book, *The Phenomenon of Man*, written in the 1930s but published posthumously (due to Vatican opposition) in 1955. De Chardin conceived the Omega Point as the endpoint towards which the cosmos and consciousness is evolving. The Teilhardian Order is named after him.

Pesochinsky Chimneys – named after Michael Pesochinsky, who has proposed ‘super-chimneys’ that could counter the effects of anthropogenic global warming by channelling warm air into the upper atmosphere. Calculations, made for illustrative purposes, estimated that 25,000 such super-chimneys, each 5 kilometres high with a diameter of 20 metres, would be required; or 10 super-chimneys, each one 5 kilometres high with a diameter of 1 kilometre.

pharmakon athanasias – a term for Christian Eucharist probably first used by Ignatius of Antioch, early second century. The Greek Church Fathers also frequently used the term. Previously, *pharmakon athanasias* referred to an ointment invented by the goddess Isis and was thought to be capable of curing many types of illnesses. The word *pharmaceutical* is derived from *pharmakon*. *Athanasias* means *immortality*.

Precognitive dreams – Antarkian theories about precognitive dreams are loosely based on the ideas of J. W. Dunne (1875–1949), described in his *An Experiment with Time*, published in 1927.

Tower of Silence – or *dakhma* (Persian) is a circular, raised

structure built by Zoroastrians for excarnation (exposure of human corpses to the elements for decomposition, the traditional Zoroastrian method of sky burial). Carrion birds, usually vultures and other scavengers, consume the flesh.

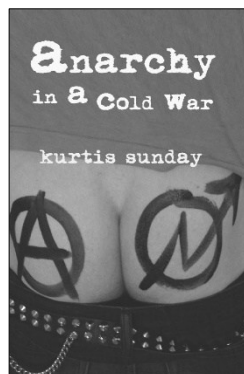
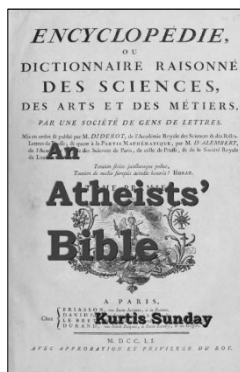
Tsiolkovsky, the – the Earth orbiting station is named after Konstantin Tsiolkovsky (1857–1935), one of the earliest pioneers of modern rocketry. He developed a rigorous theory of rocket propulsion in 1896. The ‘Tsiolkovsky rocket equation’ established the relationship between the change in a rocket’s speed, the exhaust velocity of its propulsion engine, and its initial and final mass. His spacecraft design, published in 1903, is the basis for modern spaceship design: a hull divided into three main sections – a command module and second and third sections containing the liquid oxygen and liquid hydrogen fuel. He also wrote several books on panpsychism, the belief that ‘mind/consciousness’ (defined in different ways) is a fundamental feature of reality and not merely something that ‘emerges’ out of matter. He lived most of his life in a log house 200 kilometres south-west of Moscow. The Tsiolkovskiy crater (the most prominent on the far side of the Moon) is named after him.

Warning obelisks – the problem of how to provide understandable warning signs for future generations, tens of thousands of years in the future, indicating the location of nuclear waste sites is one of the subjects of the film *Into Eternity* (2010) by Danish documentary film-maker Michael Madsen. An interview with him conducted by Dr Helen Caldicott can be found at <https://ifyoulovethisplanet.org/?p=4732>.

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In the distant future, there are only three large habitable regions on Earth: the Impæriyan Bureaucracy at the North Pole, the Antarkian Commonwealths at the South Pole, and the Ecclesiastical Sovranty of Afrika Minor in the Green Sahara. The basic law governing the complex relationships between these three civilisations is the Concordat. The lingua franca is late neo-ancient Ænglisk. The hot and arid region known as the Wilderness, which covers eighty per cent of the planet's land surface, is inhabited only by the Kinvolk. The global population is just over three hundred million.

